Croonian Lectures
ON
ADDISON'S DISEASE.

Delivered before the Royal College of Physicians,

BY E. HEADLAM GREENHOW, M.D., F.R.S.,
PHYSICIAN TO, AND LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE AT, THE MIDDLESEX HOSPITAL.

LECTURE III.—PART I.

MR. PRESIDENT AND GENTLEMEN,—The lesion in the supra-renal capsules in Addison's disease is produced, as I have shown, by an inflammatory exudation of low type, with which these organs become infiltrated. This exudation becomes converted into a firm fibrous material, which first encroaches upon and destroys the normal tissue of the capsules, and subsequently itself, together with the destroyed elements of the organs, undergoes degeneration into purulent, cheesy, or cretaceous material.

At first it would, not unnaturally, be supposed that this complete destruction of the normal structure of the supra-renal capsules must be the immediate cause of the symptoms of Addison's disease; or, in other words, that these symptoms must result from the abolition of the proper function of those organs. This was evidently the opinion entertained by Addison when he published his book; for he expressed his belief that the urgency of the symptoms was determined by the actual amount or degree of the morbid change going on in the capsules, and that, whilst universal disease of both capsules would, in all probability, be found to prove uniformly fatal, cases in which the morbid change was limited to a single capsule might be found to present proportionately slighter results. Since Addison's time, however, it has become generally recognised, by all those acquainted with the subject, that the symptoms associated with the supra-renal lesion cannot proceed from mere destruction of the tissues of the organs and consequent abolition of their function. Many physiological experiments have been made upon animals by Drs. Brown-Séquard, Geo. Harley, and others, with the view of deciding this point; but, looking to the differences in their results, and to the doubt how far these may have been due to accessory differences in the operative processes, I am disposed to attach much more weight to the clinical and pathological facts which seem to me to determine the question.

In my last lecture I showed, on the one hand, that when the normal structure of the supra-renal capsules is altogether supplanted by cancer, or has undergone complete fatty degeneration, none of the peculiar symptoms of Addison's disease are produced, notwithstanding the total destruction of the organs for all functional purposes. On the other hand, it is quite certain that, in many cases of Addison's disease, the conversion of the supra-renal capsules into a mass of fibroid tissue, and even the degeneration of this latter into cheesy material, must have been almost, if not altogether, complete, before the development of any of the characteristic symptoms of the disease. In the case of my little patient E. W——, for example, the profound alteration in the capsules, more especially in the right one, which consisted chiefly of cheesy masses with some gritty matter bound together by translucent tissue, could not possibly have taken place to any extent during the brief period of her illness; and in other cases, in which the illness has been equally short, the capsules have been found in a still more advanced and complete state of degeneration. Messrs. Rossignol and Little report the case of a servant girl, aged fifteen, whose illness was first noticed only four weeks before her death, and yet both the supra-renal capsules were in great part "made up of a material of yellowish colour, cutting like hard cheese, with here and there a little gritty matter," and presented no trace of normal structure.

The paroxysmal mode of progress, characteristic of the usual chronic course of the disease, is also quite adverse to the probability of the symptoms being due to abolition of the function of the capsules, for, in that case, the frequent rallyings from severe paroxysms of the symptoms could scarcely take place, when the nature of the local lesion must render any renewal of function impossible.

Again, it usually happens, in the case of other symmetrical organs, such as the lungs or kidneys, that, if only one of the two organs is rendered functionally useless by disease, the other acquires an increased functional activity, termed compensatory; and, if life be not preserved, it is at least prolonged much beyond the average duration of life in cases in which both organs have become diseased. In Addison's disease, on the contrary, in some of the very few cases in which one capsule only has been found diseased, the symptoms have nevertheless run a course in all respects resembling the usual course of the disease when both capsules are involved. Thus, in a girl aged eleven, whose case was reported by Guttman in 1870, and who had been under observation during five months, the left supra-renal capsule only was found to be diseased, the right one being still perfectly intact; but nevertheless the constitutional symptoms had been quite characteristic, and the discolouration of skin very fully developed. A more striking case of the same class, which had been under medical observation for some years, was published by Dr. Murchison in the Pathological Transactions for 1866. In the year 1864 the patient, a man aged twenty-seven, was in the Royal Infirmary of Edinburgh, where his case was diagnosed by Drs. Dyce Duckworth and Pye-Smith as a typical example of Addison's disease. He survived until April 1866, having been occasionally able to work at his trade during the periods of remission of his symptoms. At the autopsy only one of the supra-renal organs was found to be diseased; the diseased organ exhibiting all the characteristic appearances of the capsules in Addison's disease, whilst the other was quite healthy.

Whatever, therefore, may be the hitherto undiscovered function of the supra-renal capsules, these facts would seem to justify the conclusion that abolition of that function, by whatever lesion it may be produced, cannot be the cause of Addison's disease. That disease being, nevertheless, invariably associated with one particular organic lesion of the supra-renal capsules, we must seek for some other means by which this lesion can give rise to the characteristic symptoms which indicate its presence. Manifestly also the condition, to which we refer the production of these symptoms, must be one which is found in connexion with this one particular lesion of the capsules, and which is not associated with any of the other lesions of those organs, which equally destroy their structure, but, as we have seen, do not produce the symptoms of Addison's disease.

This condition I believe to be, the extension of the chronic inflammatory process from the diseased capsules to surrounding parts, which I described in my first lecture as one of the characteristic features of the morbid anatomy of Addison's disease. This extension of the inflammatory lesion beyond the capsules produces, as I have said, dense overgrowths of connective tissue, which form extensive adhesions between the capsules and neighbouring organs, and which, if merely by their pressure, cannot fail to affect in a very serious degree, not only those nerves which pass in and out of the capsules, but all those which are in intimate relation with them.

Now it is certain that the supra-renal capsules, which lie in close contiguity to the solar plexus and semilunar ganglia, receive a much larger supply of nerves in proportion to their size than any other organs in the body. Kölliker says that he has counted as many as thirty-three nerve-trunks in the right supra-renal capsule; and Lobstein, when describing, half a century ago, a case of tubercle of the capsules, stated that he had found eight nerve-branches going from the right semilunar ganglion to the right capsule, and thirteen from the left semilunar ganglion to the left capsule. Some physiologists, indeed, believe the supra-renal capsules themselves to be ganglionic nerve-centres. Kölliker considered the cortical and medullary portions of the organs to be physiologically distinct. The cortical portions he regarded as "blood vascular glands," and the medullary portions as appertaining to the nervous system. Bergmann held very much the same opinions. More recently, Leydig has stated that the cells which are imbedded in the meshwork of the medulla of the supra-renal capsules are of irregular form, and exhibit processes like the multipolar ganglion-

cells of the brain and spinal cord; and, further, that a number of nerve-trunks which pass through the cortical portions of the capsules are lost in the medulla, and do not again pass out—facts which, he adds, compel the belief that the nerve-fibres arise in these ganglion-cells, and that the medullary portion of the supra-renal capsules is essentially a ganglionic nerve-centre. Although I do not profess myself competent to pronounce an opinion on these histological and physiological views, I think it may safely be concluded, from the observations I have quoted, that the supra-renal capsules have peculiarly numerous and intimate relations with the semilunar ganglia and solar plexus. Dr. Habershon, to whose researches I have already referred, traced also a direct communication between the supra-renal capsules and the pneumogastric nerve, and Bergmann found a direct communication between those organs and both the pneumogastric and phrenic nerves. The supra-renal capsules therefore are not only very intimately connected with the chief centre of the ganglionic nervous system situated in the abdomen, but also, indirectly, through that centre, and, more directly, through the pneumogastric and phrenic nerves, with the cerebro-spinal nervous system.

It will readily be conceived that the pressure of a mass of hard connective tissue within and around the capsules, closely investing the nerves passing into those organs, and sometimes involving the semilunar ganglia and solar plexus, must seriously interfere with the functions of the nerve-branches imbedded in the contracting growth. But the injury to the nerves is by no means always limited to those branches which are actually bound up in the inflammatory new growth, for in many cases, several of which were quoted in my first lecture, the nerves at some distance from the inflammatory tissue have been found enlarged, by reason of increased thickness of their neurilemma, which could only proceed from the further extension of the inflammatory process along their course. Moreover, though in numerous cases it is stated that the only change discoverable in the nerves was this increased growth of connective tissue in their outer sheaths, in other cases inflammatory growths have been also distinctly seen in the connective tissue sheaths of the individual nerve-fibres. Thus Hertz saw, in a case to which I referred in my last lecture, numerous oval or spindle-shaped cells imbedded in the connective tissue between the nerve-fibres of the solar plexus and semilunar ganglia.

This undue thickening of the neurilemma must naturally tend to produce irritation, and ultimately atrophy, of the compressed medullary portions of the nerves, and these conditions have, in fact, been verified in many cases of late years.

The first notice, indeed, of a morbid condition of the nerves in Addison's disease is by Addison himself, who records in his monograph that Mr. Quekett had found, on microscopical examination of a portion of the semilunar ganglion and solar plexus in one of his cases, that they had undergone some form of fatty degeneration. But researches into the condition of nerves at autopsies were then much rarer than they are now, and the fullest and most accurate descriptions I have found are in recent and mostly in foreign cases. Hertz found in his case both semilunar ganglia reddened on the surface and also on section, and the separate ganglionic cells so filled with granular pigment as almost to conceal their nuclei. Professor Tigri found, in Burresi's case, the whole sympathetic nervous system reddened and swollen, and the semilunar ganglia enlarged. Under the microscope, both ganglia and nerve-fibres showed remains of old and recent hæmorrhages, consisting of yellow granular corpuscles and of small roundish or irregular bright-red molecules, together with some still normal red blood-corpuscles. The cells of the enlarged semilunar ganglia, but more especially of the left one, were opaque and granular, and showed no trace of nucleus; and it should be mentioned, in connexion with this fact, that the left supra-renal capsule was double the size of the right one. Rindfleisch, again, in Kuhlmann's case, found the fibres of the two nerve-trunks imbedded in the inflammatory adhesions of the capsule to neighbouring organs in a state of partial fatty degeneration. Van Andel states that in his case the microscope revealed atrophy of the sympathetic and of the solar plexus, with almost total disappearance of the medullary cells and pigmentation of the ganglionic cells. Boogaard found, in a case of Schmidt's which he examined, the sympathetic nerve much atrophied; and Bartsch reports, in a case in which the pathological conditions were very characteristic, that the semilunar ganglia were of a greyish-red colour, and the ganglionic cells almost all filled with fat, and very few of them showing any nucleus.

These numerous observations, by competent physiologists, leave no doubt that the antecedent probability of injury to the nerves in intimate relation with the supra-renal capsules, from the chronic inflammatory process going on around them, is borne out by the facts.

We now come to the question, how far the various symptoms of Addison's disease can be shown to be due to these morbid changes in the abdominal portions of the sympathetic nervous system. Addison himself conjectured, latterly, that the intimate connexion of the supra-renal organs with the nervous system had a large share in the production of the symptoms; and Drs. Wilks, Habershon, and others, adopted this view, and attributed them to the implication chiefly of the sympathetic nerve. But the belief in this mode of production of the symptoms was at that time merely theoretical, and, as such, I attached little importance to it. Of late years, however, the observations which I have detailed have convinced me that the nerves in close relation with the supra-renal capsules are undoubtedly affected in every case, to a greater or less extent, by the chronic inflammatory process of Addison's disease; and, from various analogies, I think it must be inferred that at least all the more important features and prominent symptoms of the disease are due to the morbid changes in the affected nerves.

These changes are of two kinds, and we may presume that the irritation, producing the reddening and swelling observed in Hertz's and Burresi's cases, is the primary effect of the extension of the inflammatory process to the nerves; whilst the total impairment of their functions, which must result from the atrophy or fatty degeneration described by Rindfleisch and others, will not take place until a later period. It is obvious that irritation of the nerves, although arising from a permanent cause, would be likely to vary in degree from time to time, to subside more or less completely under favourable circumstances, and to be easily aggravated anew by comparatively trivial causes. Neither must it be lost sight of that fresh extensions of the inflammatory process may at any time take place, irrespective of circumstances. Again, according to variations in the acuteness of the inflammatory process in the capsules, the extension of inflammation to the nerves may not take place in some cases with the same degree of rapidity or intensity that it does in some others.

If such be the internal conditions, it becomes no longer surprising that the constitutional symptoms of the disease should vary somewhat both in course and character in different cases, and in the same case at different stages; nor that the course of the disease itself should be subject to alternations of exacerbation and remission, and the paroxysms of depression come on with or without apparent cause; nor even that in some cases the symptoms should remain latent for longer or shorter periods of time, and seem to be only developed at last by some outward depressing cause. Again, the individual constitutional symptoms of the disease seem in great part explicable, either by the direct effects of the nerve-lesions upon certain organs, or by their reflex action through the cerebro-spinal nervous system. The invariable listlessness and indisposition for exertion, the extreme feebleness without corresponding emaciation of the muscles, the shallow respiration, breathlessness on exertion, and small, thready, compressible pulse—all point to some serious interference with the functions of the nervous system; whilst the profound asthenia, which supervenes before death from Addison's disease, exhibits a great analogy to the collapse which follows a fatal shock to the nervous system from some severe injury. The sighing, yawning, and hiccough, so frequent during the paroxysms of depression, are direct nervous symptoms; and the affections of sight and hearing, the numbness, anæsthesia, and tremors, the convulsive twitchings and epileptiform and other seizures, may all be explained by reflex nervous action through the cerebro-spinal system. With respect to the gastric symptoms, although I am indisposed to draw conclusions from facts of which I have no personal experience, certain physiological experiments do appear to throw light on their production through the medium of the nervous system. Pincus states, in Funke's Physiology,

that extirpation of the solar plexus and semilunar ganglia in animals is followed by hyperæmia, ecchymoses and ulcerations of the stomach and upper part of the intestinal canal, whilst similar results do not follow the same operations in the abdomen, if injury to the nerves be avoided. The catarrh and other affections of the mucous membrane of the stomach, and the enlargement of the solitary and agminated glands of the small intestine, so constant in chronic cases of Addison's disease, would thus be shown to be the direct results of the interference with the functions of the abdominal nerve-centres by the extension of the inflammatory process. Jaschkowitz has also found enlargement of the spleen follow the cutting through of the sympathetic—a result which would tend to explain the not unfrequent appearance of this pathological change in cases of Addison's disease.

Although many writers have concurred in attributing the constitutional symptoms of Addison's disease to some lesion of the nervous system, they differ widely in their ideas of the relation which subsists between the supposed nerve lesion and the disease in the supra-renal capsules, and, also, of the means by which the symptoms are produced. Risel, who, like myself, attributes the symptoms to lesions of the nerves produced by the inflammatory disease of the capsules, considers that they are the direct results of a permanent excess of blood throughout the abdominal cavity—due to loss of vascular tone from nerve irritation,—and of a corresponding deficiency of blood in other parts of the body, neither of which conditions have existed in the cases which I have examined. Amongst other recent views are those of Schmidt, Burresi, and Kuhlmann, who have concluded from the important changes in the nerves found in their cases, that the essence or primary cause of the disease is a morbid affection of the sympathetic or trophic system of nerves, and that the supra-renal disease is only a secondary phenomenon or accidental complication. Bartsch considers it doubtful whether the supra-renal capsules or the semilunar ganglia will be found to contain the centre of the trophic nerves, which he regards as the true seat of the disease. Rossbach, as I have said, deduces from the case related in my last lecture an altogether new theory of the nervous origin of the symptoms of Addison's disease. He attributes them entirely to functional disturbance of the cerebro-spinal nervous system, produced by long-continued grief and trouble, and bearing a close analogy to the nervous ailments which produce hysteria. He includes the two diseases under the head of "general neuroses with unknown anatomical causes," and concludes that, as hysteria often exists without uterine disease, so the lesion in the supra-renal capsules bears no constant relation to Addison's disease. Had the premises only been correct, it would have been difficult to controvert his arguments; but he had to do, as we have seen, not with a case of Addison's disease at all, but with a case of hysterical mania, aggravated no doubt by the irritation of the scleroderma, and complicated with degenerative disease. Consequently, his arguments, which are convincing enough as to the origin of the symptoms in the case really before him, have no bearing whatever upon the question as to the origin of the disease with which he supposed himself to be dealing.

Owing to the undue prominence which has always been given to the bronzing of skin as a symptom of Addison's disease, the character and causes of this abnormal pigmentation have been far more fully and widely discussed than those of the constitutional symptoms. Virchow, in his work on Tumours, expresses his belief that it is probably due to nerve disease, not dependent however, he considers, on the nature of the morbid process in the supra-renal organs. Bühl regards the pigment-deposit as the direct result of a blood change, characterised by a deficiency of fibrine, excess of white corpuscles, and unusually dark colour of the blood. I should remark, by the way, that the four cases upon which Bühl founded this opinion were all complicated with general disease of the lymphatic glands, or extensive tuberculosis, and with great enlargement of the spleen, in one case to four times its natural size; and, though in some of them the capsules seem to have presented the appearances of Addison's disease, in one at least they did not. The other conditions are such as are well known to be associated with leucæmia and melanæmia. Martineau holds that the bronzing of skin, though most frequently associated with disease in the supra-renal capsules, is really independent of its existence, "because equally common in tuberculous, cancerous, and miasmatic cachexias." Jaccoud, in his able article on "Bronzed-skin Disease" in the new French Dictionary of Medicine, attributes the pigmentation in Addison's disease to irritation of the vaso-motor sympathetic nerves excited by the supra-renal lesion; but considers the length of time requisite for the hypersecretion of pigment by this means to be the obvious explanation of the earlier development of the constitutional symptoms. Risel is of opinion that, although vaso-motor influences may have a share in the pigmentation of the skin, it cannot be sufficiently accounted for without the supposition of some blood change, due to the changes in the spleen and lymphatic glands, as well as to the diminished nutrition from the catarrh of stomach and intestines.

So far, however, as I have been able to ascertain, the composition of the blood does not undergo any important alteration in uncomplicated cases of Addison's disease. In all my later cases the blood has been examined microscopically, with virtually negative results. In one woman, who was anæmic, and had never been robust since an attack of scarlatinal dropsy seven years before her last illness, the white corpuscles were slightly in excess, but in all other respects the blood appeared perfectly normal, the red corpuscles being abundant, and forming rouleaux in the usual manner. In another of my patients, who had been in the hospital previously, and was readmitted on account of the extreme prostration following loss of blood from a slight wound on the forehead, the blood, when first examined, was not exactly normal. There was no marked excess or diminution of white corpuscles; but there was a deficiency of red corpuscles, and those present did not form into rouleaux, but were scattered singly over the field. There was also a large number of globular highly refractive nuclei, of a red colour, measuring on an average $\frac{1}{3000}$ of an inch in diameter, mostly lying isolated, but here and there aggregated in groups. At the end of three weeks, however, when the patient had recovered her strength, the abnormal conditions of the blood had disappeared, and their temporary existence could not well be a specific result of Addison's disease, seeing that precisely the same appearances were verified, though to a less marked extent, in the blood of two other patients who were in the hospital at the same time, one of whom was suffering from constitutional syphilis, and the other from simple debility and anæmia. Since the delivery of my last lecture the courtesy of Dr. Bristowe has given me another opportunity of examining the condition of the blood in a well-marked case of Addison's disease. The patient, a woman aged forty-eight, who is at present under his care in St. Thomas's Hospital, is suffering from extreme debility and nausea; her circulation is so feeble that it was most difficult to obtain a tracing of the pulse, and she is quite as dark as a mulatto. Nevertheless, her blood was found, on microscopical examination, to be rich in red globules, which arranged themselves freely in rouleaux, and it certainly did not contain any marked excess of white corpuscles. A few of the small highly refractive bodies described in my own case were scattered singly over the field.

Dr. Thudichum, who examined chemically, for sixty-five continuous days, the urine of a patient who died in the Middlesex Hospital, under the care of Dr. Burdon Sanderson, and found a great deficiency in the uric acid and colouring matter, concludes from his researches, that "the brown deposit in the skin is the varying balance of a current account," which "may increase or decrease." Apparently he means to infer that the abnormal deposit of pigment in the skin is an alternative result of these deficiencies in the composition of the urine, and varies in intensity according to their variations. Mr. West, in a paper recently read before the Royal Medical and Chirurgical Society, states the exact amount of the deficiency in the proportion of urea excreted in a case of Addison's disease, and his analyses, though few in number, agree with the results obtained by Rosenstein from analyses of urine in some cases of Addison's disease, in which he always found the quantity of urea excreted to be deficient, and that of indican in excess. It appears to me, however, that no inferences can be drawn from the results of these researches with respect to the production of the bronzing of skin. I believe the deficiency both of uric acid and of urea in the urine to be due to the diminished functional activity, and consequent diminished waste of tissue, invariably characteristic of Addison's disease.

The excess of indican is perhaps more directly due to altered nervous influence, for I have repeatedly found it in the urine of patients who had passed through the collapse stage of cholera or were suffering from certain diseases of the spinal cord.

My own opinion is, that the change of colour in Addison's disease is undoubtedly produced, like the constitutional symptoms, through the medium of the nervous system. The paling of the discolouration coincidently with remissions of the constitutional symptoms, and its deepening and extension with every fresh exacerbation of the illness, appear to me to afford strong clinical evidence that these two features of the disease are referable to a common cause. Moreover, the interesting cases, detailed by Meissner and others, of general and permanent darkening of skin produced by agony of mind, sudden alarms, and other violent emotions, leave no doubt of the fact that nervous influences are capable of producing abnormal pigmentation; and this fact seems to me to furnish another strong presumption that the progressive discolouration of the skin in Addison's disease is due to a morbid action of the affected nerves. There is, however, no evidence to connect it directly with any of the nerves actually involved in the inflammatory process, and I am inclined to attribute it rather to reflex irritation through the cerebro-spinal nervous system.

Although the correctness of these inferences is not susceptible of proof, without much clearer knowledge than we now possess of the part actually played by the nerves in the physiological processes disturbed by the disease, I venture to think that the views I entertain derive considerable support from the clinical and pathological facts upon which they are based.

SUCCESSFUL SERIES OF OPERATIONS FOR STONE IN THE ADULT; ILLUSTRATED BY A HUNDRED RECENT CASES.

BY SIR HENRY THOMPSON,

SURGEON-EXTRAORDINARY TO H.M. THE KING OF THE BELGIANS; LATE PROFESSOR OF CLINICAL SURGERY, AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

THERE is a famous series of stone operations which is very frequently referred to as perhaps the most successful on record, performed by Martineau, of Norwich, and reported in the Medical and Chirurgical Transactions, vol. xi., p. 402, 1821. The number of patients was 84; amongst whom there were only 2 deaths. The operation was, of course, in all lithotomy. They occurred between 1804 and 1820 inclusive—a period of seventeen years.

Before making any comparison with this, it will be necessary, first, to analyse briefly the list with reference to sex and age. It will then be noted that a very large proportion were children, while 6 were females; deducting these latter, there remain 78 male cases, of which not less than 34 were under 15 years of age, leaving only 44 adults. Of these 44 adults, no more than 12 were upwards of 60 years of age; only 24 were 50 years old and upwards, giving for the latter a mean age of 62½ years; the 2 deaths occurred among them.

No error is more common than that of comparing lists of cases without noting this most important element of age. Death after lithotomy in children is notoriously infrequent; indeed, it is a result scarcely to be expected, unless under circumstances of some rarity. During middle life, also, lithotomy is a very successful operation; but at the age of 60 and upwards it is one of considerable risk. Hence, unless an exact statement respecting the patient's age is afforded, no inference can be drawn from any number of cases of which the results are reported. A mere statement of the number of patients operated on, with the proportion of recoveries and deaths, is absolutely valueless, and is often misleading.

I wish now to compare with the above a series of my own, and shall take for that purpose simply my last 100 cases, as a round number easily dealt with, of operation in *the adult*. I have not included in my list any patient below 22 years of age, at which there happens to be one. There are, indeed, only four patients, including that one, below 50 years of age, while in Martineau's series of 84 there are not less than fifty-four below that age. Of my 100 cases, sixty-five, are above 60 years of age (only twelve are above that age in Martineau's list), and the mean age of the entire 100 cases is not less than 63¼ years (the mean of Martineau's entire adult series is under 47 years); consequently the age ranges far higher in my series than in his.

My present 100 cases commenced shortly before Christmas, 1872, and includes every one operated on by myself up to the present time; it consequently represents my entire work of the last two years and a quarter. It may be worth while naming, in order to show that I have not carefully selected the term, that it commences just before the death of the late Emperor Napoleon, which is the third case of the series.

Ninety-six were adult males, four were adult females.

Of the 96 males, 87 were operated on by lithotrity and 9 by lateral lithotomy.

The mean age of the 87 operated on by lithotrity is 63¼ years, the oldest being 83, the youngest 22, but only 4 were below 50 years.

The mean age of the 9 operated on by lithotomy was 63¼ years also, their respective ages being 36, 59, 59, 61, 63, 70, 75, and 79.

Among the 87 operated on by lithotrity were 4 deaths, the ages were 61, 65, 66, and 81.

Among the 9 operated on by lithotomy were 2 deaths—viz., at 61 and 63.

Thus it will be seen that there was a total of 6 deaths in 96 patients, with a mean age of 63¼, by the two operations.

While alluding to what has been termed a run of successful cases in practice, I may observe that in this 100 of mine there was one more remarkable than I have ever before witnessed or heard of. I had a succession of 51 elderly adult cases without a single death. They occurred between July, 1873, and June, 1874. These 51 cases (7 more than Martineau's entire adult series of all ages) had a mean age of 64 years.

I wish to present this brief *résumé* as a fair example of what careful selection of the two operations is now capable of accomplishing for calculous patients. It is a little better than my entire average, including all my earliest experiences. What that is I hope soon to give to the profession in a complete form. I hope then to have the opportunity of recording all that I have been able to glean from an unbroken series of 500 cases in the adult male, besides the cases of women and children.

Wimpole-street, W.

PULSATILE FLUSHING OR REDDENING OF THE PALMS OF THE HANDS AND VENOUS PULSATION.*

BY W. H. BROADBENT, M.D., F.R.C.P.,

PHYSICIAN TO ST. MARY'S HOSPITAL AND THE LONDON FEVER HOSPITAL.

SYMPTOMS are met with from time to time which it is worth while to detach from the case in which they are observed, and consider separately and independently, either on account of their rarity or from some special significance which attaches to them, or from their bearing on the general relations of disease.

Such a symptom is pulsatile flushing of the cutaneous capillaries, which has twice come under my notice lately. It is most readily seen, according to my experience, in the hands when they are warm from having been under the bedclothes, and on their palmar aspect. In the cases in which it is observed certain parts of the palm will be found to present a bright pink blush, the prominences, namely, along the series of metacarpo-phalangeal joints, the thenar and hypothenar eminences, but notably the ball of the first finger. Fixing the attention on any of these points, but especially on the part last named, the redness is seen suddenly to extend and deepen with each pulsation of the arteries, fading rather less quickly in the interval. In a well-marked case these rapid alternations of red and white have almost a

* By venous pulsation is meant, not reflex jugular pulsation, but direct pulsation in the veins on the back of the hand.

dazzling effect when attentively watched for a time. Of course this distension of the capillaries with blood at each pulsation can only take place when there is an extreme degree of arterial relaxation and dilatation, and other signs of this condition will be present. The pulse will be large, soft, and short, or collapsing, and perhaps visible; the pulsation of the palmar arch may be seen, the digital arteries will be felt to beat violently, and the pulp of the terminal phalanges seems to swell under the fingers. Naturally also, when the blood is allowed to rush in this way almost unobstructedly through the arteries and capillaries, it will not have lost its pulsatile motion when it reaches the veins; but special measures have to be taken to render this visible. For venous pulsation to be easily seen the veins must be full, but not distended or obstructed. It is generally sufficient to let the hand drop at the wrist, when the dependent position of the fingers and the slight tension of the skin over the wrist will cause the veins of the back of the hand to fill; a pulsatile wave will then be seen to pass gently along these vessels from below upwards just after each pulse in the radial artery.

The cases in which I have observed the phenomena described are as follows:—

A young man—G. C——, aged eighteen—was admitted into St. Mary's Hospital Oct. 17th, 1874, in his third attack of acute rheumatism. It was comparatively slight, as had been the former attacks, but the family history showed a strong rheumatic tendency, and both mitral and aortic valvular disease had been established. The apex beat was in the sixth space, an inch and a half below the nipple (hypertrophy chiefly of the left ventricle). At and to the left of the apex a loud systolic murmur was audible (mitral regurgitation); it was heard also near the left edge of the lower sternum. At the right second space there was a loud double murmur, the systolic murmur, the louder of the two, being continued upwards to the right sterno-clavicular articulation and into the neck, the diastolic murmur obliquely downwards across the sternum. Loud pulmonary second sound; no aortic second sound in neck. Pulse 84, regular, visible both in radials and ulnar and in neck, audible, and markedly collapsing; temperature 100·8°.

On the 21st the rheumatic pains were already gone; the pulse 74; temperature normal. It was at this time that the pulsatile flushing in the palms of the hands was observed. Pulsation was visible in the radial and ulnar arteries (audible also in the former) and in the superficial palmar arch, and it was while demonstrating the character of the collapsing or hammering pulse (sometimes called Corrigan's) that the flushing of the capillaries at each pulsation was noticed; it was, indeed, in this case remarkably conspicuous. The venous pulse was easily obtained in the way already described.

Two drachms of infusion of digitalis were added to the iodide of potassium and citrate of iron and quinine, which I usually give at this stage of rheumatism, and on the 24th the flushing of the capillaries no longer took place, and pulsation was not visible in the palmar arch. The patient left the hospital cured, as regards the rheumatism, on Nov. 7th, but of course still having the aortic and mitral incompetency.

The second case is more important. The patient, Wm. G——, aged twenty-five, a jeweller and watchmaker, had previously had three attacks of acute rheumatism, two slight, and one very severe. He was admitted January 25th, 1875, after suffering ten days from the disease in a well-marked form, complaining also of pain in the cardiac region, which extended downwards and through to the back. There was a loud systolic murmur at the right second space, which became even louder in the neck; a soft, smooth diastolic murmur at the right second space and downwards; no second sound in neck; a loud systolic murmur at and to the left of the apex, which was displaced downwards to the sixth space. Pulse regular, markedly collapsing; temperature 101·2°.

Alkaline treatment was adopted, and on February 10th all pain was gone, the temperature was 97·4°, and the patient was apparently convalescent. On February 13th the pulse was so strikingly jerking and collapsing as to suggest an examination for pulsatile reddening of the palm of the hand and venous pulsation. The hand was warm from having been under the bedclothes, and was in a favourable condition, and the expected phenomena were found, as were also violent pulsation in the digital arteries, and pulsatile expansion of the pulps of the fingers. Pulse 104; temperature 98·4°; urine, specific gravity 1015, and of normal general character. Cardiac murmurs as before.

February 17th.—No return of pain, but evidently not so well. Distressed; loud and more frequent respiration; pulse collapsing. Systolic murmur of right second space and in neck; the diastolic murmur was faintly heard at the right second space, but apparently became very distinct to the left of the lower sternum and over the ensiform cartilage, less distinct towards the apex. This apparently intensified diastolic murmur was, however, doubtless a friction sound, for along the right edge of the sternum a smooth, high-pitched, to-and-fro sound was heard, which might easily have been taken for a double aortic murmur, but on careful attention had more the character of friction; and, what was conclusive, over the lower right costal cartilage this to-and-fro sound not only became more distinct, but also longer. A valvular murmur could not well be prolonged or become louder at this point, whereas, as Dr. Sibson's diagrams show, the range of movement of the anterior surface of the heart is here almost at its maximum, and friction would therefore be extended. A loud, coarse systolic murmur was heard at and to the left of the apex.

Later, bronchitis came on, attended with severe cough, which shook him greatly, and made him tremble and perspire after each paroxysm; the expectoration was profuse, tenacious, and of a green tinge. The temperature did not rise, but the pulse became frequent, and at last irregular; and the patient died suddenly on the 24th February, from the formation of a fibrinous coagulum in the heart.

At the post-mortem examination the heart was found to be hypertrophied and dilated, as had been indicated by the position of the apex-beat and the extent of the impulse. The pericardium was coated by a thick layer of recent lymph, which could be stripped off in the form of a tenacious membrane; at the seat of an old adhesion bloody fluid was effused between the two layers of the pericardium. The mitral valve and its tendinous cords were thickened and contracted, but the incompetence could not apparently have been considerable, though the regurgitant murmur was loud. The aortic valves were thickened and failed to meet completely, a triangular aperture being left when they were in position. On the ventricular aspect of the valves lines of beads of recent lymph were seen, extending only so far as the valves came in contact with each other, and being absent at the central part of each. Ante-mortem clots were found in the right ventricle and auricle.

The circumstances under which pulsatile flushing of the cutaneous capillaries has been observed have now been given. It was evidently due to a combination of favouring conditions: aortic regurgitation in which the movement of the blood is less sustained and more intermittent, together with relaxation of the peripheral vessels generally by pyrexia, and of the vessels of the part by warmth, which permitted the blood to shoot into the capillaries. It should be noted, however, that the pyrexial stage was over when the reddening was seen; the arterio-capillary relaxation was therefore not due to the temperature of the blood at the moment. It may be considered as a residual phenomenon of the antecedent pyrexia, but it must be remembered that the same degree of pyrexia, as estimated by temperature, is attended by very different conditions of the arterioles in different diseases; they are contracted, for instance, in scarlatina, relaxed in enteric fever, but especially they are extremely relaxed in acute rheumatism, more so, I think, than in any other disease, while in any attack of acute gout which has come under my observation there has always been a degree of arterial tension. In chronic gout arterial tension is a constant characteristic. I attach considerable importance to this difference (as regards the relations between the blood and tissues or vessels) between gout and rheumatism; in the one the passage of the blood through the arterioles and capillaries being resisted, while in the other it shoots or slips through with undue facility.*

* In parenthesis, I may remark that the only two instances in which I have seen marked venous pulsation have been cases of chronic alcoholism in which for a long time very little food had been taken. If alcoholism pure and simple gives rise to persistent arterio-capillary *relaxation*, and if, as I am disposed to believe, arterio-capillary *tension* is a link in the chain of causation of contracted granular kidney, then alcoholism can only contribute indirectly to the production of this disease, probably by inducing retention of nitrogenised waste.

Returning to the case last related I was led by the arteriole relaxation to over-estimate the degree of aortic incompetence in consequence of the exaggeration of the jerking character of the pulse which it induced, and though I had not post-mortem proof of the fact, I have no doubt I made a similar over-estimation in the former case.

The cause of low vascular tension in acute rheumatism, especially when this gives rise to pericarditis, or the end which it answers, must remain unknown. I have once observed a singular result from it—namely, improvement in the condition of the heart from an attack of rheumatic fever. This was in the case of a young man who has been under my observation for about eight years on account of aortic regurgitation. The hypertrophy of the heart has reached a degree I have never seen equalled, and the aorta can be seen to pulsate in three intercostal spaces along the right edge of the sternum. Mitral regurgitation had been for some time established secondary to the aortic disease, and I feared the speedy development of symptoms of cardiac failure, when, in May, 1874, he was seized with acute rheumatism in a severe form. He refused to enter the hospital, and I watched him through the attack at home, kept him in bed for some time after the acute symptoms had subsided, and afterwards sent him to a convalescent institution. When he presented himself for examination on his return, I found that the systolic murmur at and to the left of the apex, which from its character had been easily distinguished from the systolic aortic murmur, and confidently attributed to mitral regurgitation, had entirely disappeared. It was not re-established for some weeks, but is now present. The patient does a fair amount of work as a greengrocer, has a good colour and expression, and is muscular. He attends at the hospital from time to time, when he has pain or discomfort or takes cold, and gives me the opportunity of demonstrating in perfection all the signs of aortic regurgitation, the visible and audible pulse, the double murmur at the right second intercostal space, and the absence of second sound in the neck, together with other features of interest alluded to: the extraordinary hypertrophy of the heart, the dilatation of the aorta, the secondary mitral regurgitation, and what I have not yet mentioned, a loss of time between the heart's impulse and the pulse at the wrist, which usually makes them alternate regularly with each other, but at times goes so far as to make the pulse appear to precede the systole of the heart.

ON

RECENT IMPROVEMENTS IN THE DETAILS OF ANTISEPTIC SURGERY.

BY JOSEPH LISTER, F.R.S.,

PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF EDINBURGH.

(*Continued from p. 436.*)

THE effect of an accumulation of serum in keeping up inflammatory disturbance, and the usefulness of the drainage-tube combined with antiseptic management under such circumstances, are well exemplified by chronic bursitis patellæ, with fluid effused into the sac. The skin being washed with 1 to 20 carbolic lotion, a puncture is made under the spray with a tenotomy knife, sufficient for the introduction of a drainage-tube scarcely larger than a crow-quill, care being taken that it penetrates fairly into the cavity of the sac, which often lies at a considerable depth in consequence of thickening of the membrane and of surrounding textures. The narrow drainage-tube may be readily inserted by means of a simple modification of the dressing forceps introduced by myself several years ago, but hitherto unpublished. The blades, which are straight, are ground down to the size of a probe at their extremities, as shown in the accompanying sketch, so that they can be passed into a very small orifice. This instrument, which goes by the name of sinus-forceps among the Edinburgh instrument-makers, will be found very useful for extracting small exfoliations and for various other purposes.

The clear fluid contents being all pressed out of the sac, a gauze dressing is applied, and retained in position with a figure-of-8 bandage. The dressing being changed next day, the gauze is found considerably soaked with serous discharge, but, if the tube is acting efficiently, nothing can be pressed out of the cavity. And it will very likely be found that the end of the tube is projecting slightly above the level of the skin, and cannot be pushed in again to its original position, so that it is necessary to shorten it a little. This depends on the fact that, even within twenty-four hours of the opening of the sac, the chronic thickening of the textures has markedly subsided. The same thing will be probably still more apparent when the dressing is again changed after forty-eight hours more, when also the serous stain on the gauze resulting from two days' discharge will be only a

small fraction of that seen after the first twenty-four hours. The tube being further shortened to the requisite degree, the dressing now applied might be left untouched for a week so far as regards the purpose of ensuring absence of putrefaction; but it will be well to expose the part again in two or three days in order to ascertain whether or not the drainage-tube may be dispensed with; the rule being that it should be continued so long as the serous stain on the gauze is more than the puncture, as distinguished from the interior of the sac, would account for. This is probably the case within a week of the opening of the bursa; and then, the drainage-tube being discontinued, and a small piece of protective being interposed between the puncture and the gauze so as to permit cicatrisation, the little sore will be found completely healed in the course of another day or two. At the same time the sac will be free from any fluid accumulation, and the surrounding thickening either quite gone or quickly disappearing.

While we have thus a sure, speedy, and (except the in-

fliction of the puncture) a painless* method of remedying a troublesome complaint, the results are of considerable theoretical interest. It is plain that the antiseptic employed does not penetrate into the bursa, so as to exert any direct action on the part affected. All that the treatment does is, while guarding against the access of putrefactive fermentation, to provide that the plasma poured out from the synovial surface shall flow freely away as fast as it is effused and never accumulate in the cavity. Yet when these conditions are complied with, the obstinate chronic inflammation, which has perhaps already resisted rest and counter-irritation, immediately proceeds to subside, the morbid tendency of the synovial membrane is soon entirely lost, and the surrounding inflammatory thickening is dispersed. It follows therefore that the presence of the fluid within the sac was of itself sufficient to perpetuate for an indefinite period the state of chronic inflammation. And this fluid being the bland liquor sanguinis, perfectly destitute of chemically irritating qualities, the only possible way in which it could have produced its effect is by mechanical disturbance occasioned by its presence in the sac. In other words, the agency by which the chronic bursitis was maintained was that which, next to putrefaction, is the commonest of all causes of inflammation in surgical practice—viz., tension. Yet, in cases of this kind, the sac is by no means always extremely distended; but, flaccid though it may be, the fluid present in it keeps up by its mechanical influence the tendency to abnormal effusion from the synovial surface and inflammatory hypertrophy in the surrounding tissues. It seems to me important that this point should be capable of being thus clearly demonstrated; because the knowledge that a flaccid collection of liquid acts as a cause of disturbance not only serves to explain the obstinacy of chronic serous and synovial effusions, but throws light upon other important matters, such as the prejudicial effect of even a slight accumulation of serum within a wound, as in the aneurism case above related, or the influence of the presence of the contents of a slack chronic abscess in maintaining suppuration from the pyogenic membrane. And, conversely, this knowledge enables us to understand the benefit often obtained by simply evacuating serous or purulent collections, either as a single remedial measure or as a preliminary to counter-irritation.

When the evacuation is effected in such cases by means of the aspirator, the piercing canula should be dipped into carbolic oil before introduction. And if, as is often the case, the narrow tube becomes obstructed by lymph or curdy material, there is no objection whatever to the use of an ordinary canula and trocar of any size that may be necessary, provided that the instruments be smeared with the antiseptic oil and the operation be performed under the spray. In abscesses, however, according to my experience, a cure rarely results from evacuation of the contents by an opening which is allowed to close. The plasma which exudes from the pyogenic membrane after withdrawal of the pus will, if retained, nearly always occasion sufficient tension to reproduce suppuration. But if it be allowed to flow freely away through a drainage-tube, under an antiseptic dressing, the pyogenic membrane being freed from the disturbing cause which urged it to perpetual suppuration before the abscess was opened—viz., inflammatory excitement occasioned by tension (greater or less according to the degree of acuteness of the case), while the granulating sac is protected from the new stimulus to which it would be subjected if the abscess were opened without antiseptic measures—viz., the chemical irritation of putrefying material,—the beautiful sight is witnessed of cessation of suppuration from the moment that the original pus is evacuated, the serous discharge diminishing constantly till the abscess cavity is closed.

If antiseptic treatment had done nothing more than create such a revolution in the treatment of abscess and throw such light upon its pathology, it would have well deserved the gratitude of the surgeon.

But in order that such results may be obtained, it is necessary that both the above conditions be complied with—viz., a perfectly free outlet for discharge, and thoroughly efficient antiseptic management from first to last. If the former condition be not fulfilled, inflammatory suppuration from tension will occur; or if the accumulation of fluid be only to a very slight extent, increase or persistence of serous oozing will be the result. And if the latter essential fail to be maintained—as for example, through inefficiency of the retaining bandage, allowing the dressing to become loose or displaced, or through the antiseptic treatment being given up too early, before the sinus has completely closed,—septic suppuration will take place, with its various consequences, such as free incisions and counter-openings, or, in vertebral or articular disease, disaster varying according to the circumstances of the case.

A sponge wrung out of a strong watery solution of carbolic acid (1 to 20) forms a valuable aid to the drainage-tube in preventing, during the first twenty-four hours, the accumulation of blood in wounds having a considerable cavity, such as those left after the removal of tumours.* The wound having been stitched and the drainage-tube (or tubes) inserted, a strip of oiled silk protective is laid along the line of incision to keep it moist, and so prevent the sponge from adhering. A soft sponge, large enough to cover the entire cavity of the wound and purified as aforesaid, is then applied, and over it a gauze dressing sufficiently extensive to reach several inches beyond the sponge in every direction. The whole is retained in position by a pretty firm bandage, so as to bring into play the elasticity of the sponge, which keeps the surfaces of the wound in apposition, and, while checking sanguineous effusion, compels that which does occur to escape by the drainage-tube, when it is at once sucked up by the sponge as it oozes from beneath the protective.

If anyone desires proof of the potency of a strong watery solution of carbolic acid to deprive septic ferments of their energy, he cannot do better than consider the results of this mode of dressing. The same sponges are used over and over again till they wear out, and for hospital purposes they are kept always steeping in the carbolic lotion. But in private practice the plan which I have pursued for several years is the following:—The sponges, after being used for an operation, are put into a vessel of water and left there till the fibrine in their pores has been converted by putrefaction into a slimy liquid which can be readily washed out. They are then squeezed in successive portions of water till they cease to discolour it, and, after having been well wrung, they are thoroughly moistened with the 1 to 20 watery solution of carbolic acid. The sponges after being so treated have, very likely, a decided putrefactive odour clinging to them; but this is a matter of no moment. The presence of a little of the *products* of putrefaction will do no harm if the *causes* of the fermentation have been destroyed. And that such is the case is evident from the following considerations:—The sponge, being squeezed as dry as possible when applied, contains but little of the solution of carbolic acid with which it was treated, and this is soon displaced from the parts next the wound, or at least copiously diluted by the effused blood and serum, which are often in such quantity that the red liquid can be wrung out of the sponge when it is removed on the following day. If therefore any septic ferment were present in an active state in the deeper parts of the sponge, the bloody serum could not fail to putrefy, since there is certainly not a sufficient proportion of carbolic acid mixed with it to act as an antiseptic. Yet, in point of fact, putrefaction never does occur in the sponge (provided, of course, that all the proceedings have been, in other respects, conducted antiseptically), and I cannot call to mind a single instance of such an occurrence either in private or hospital practice. It follows that no active septic ferment is present in the portions of such a sponge which become soaked with the serum. Yet before the sponge was treated with the solution of carbolic acid it contained such ferments in abundance; for, not to speak of the residual putrid material left after the often hasty and imperfect washing, the very water with which it was washed teemed with septic ferments, as was clearly demonstrated some years ago by Dr. Burdon Sanderson.† How, then, had they

* If it be desired, the puncture may be performed painlessly after congelation of the integument by Richardson's method with ether spray, the skin being washed with the carbolic lotion before freezing, and the antiseptic spray substituted for the anæsthetic before the tenotome is introduced.

* The sponge had long been a favourite application of Mr. Syme's under such circumstances, and he was the first to use it antiseptically. The case was one of very large parotid tumour, in a woman advanced in years; and the dressing employed was a large sponge squeezed out of carbolic oil, which answered its purpose admirably.

† See Dr. Sanderson's paper in the Quarterly Journal of Microscopical Science, 1871.

been got rid of? They could not be all washed out like the carbolic acid, because, as will be shown in the next paragraph, they are not matter in solution, but solid particles, which must remain entangled in abundance in the porous material of the sponge. The only other possible way in which they can have been disposed of is by the action of the carbolic acid upon them. And thus we are led inevitably to the conclusion that this agent, applied in the form of a strong watery solution, completely and permanently extinguishes the septic energy of putrefactive ferments.

That the septic ferments are solid particles, not material in solution, might be pretty safely assumed from analogy, if it were granted that they are living organisms; though, indeed, I once heard it propounded in conversation by a very sound and eminent chemist that, for aught we could tell to the contrary, living matter in its lowest forms might exist in a soluble condition—an idea suggested by Dr. Sanderson's statement that a drop of water in which no bacteria could be discovered by the microscope will nevertheless give rise to the development of such organisms when added to a liquid adapted for their growth. But those who hold that the septic agents are not organisms at all, but so-called chemical ferments, might with greater justice contend for their possible solubility. The point being of great practical as well as speculative interest, I have been glad to obtain conclusive evidence regarding it from some simple experiments lately performed, and hitherto unpublished. I must content myself on the present occasion with briefly indicating their character.

A series of experimental glasses, contrived so that their contents shall be securely protected from dust, though the atmospheric gases gain free access to them, having been purified by heat, are charged with some liquid, like boiled milk, favourable for organic development and prone to fermentative changes, but uncontaminated at the outset by the presence of any living organism.* If the glasses so arranged are left undisturbed, the liquid remains unaltered for an indefinite period, except that its bulk is slowly diminished by evaporation. But if a minim of ordinary drinking-water is added to any one of the glasses, its contents will in a few days be obviously altered in chemical character, and before long will probably be decidedly putrid, the microscope at the same time revealing abounding bacteria—a result in perfect accordance with Dr. Sanderson's observations. If, however, instead of an entire minim, a small portion (say a hundredth) of a minim of the same water is added to each of a series (say ten) of such glasses (which can be readily done by means of a small syringe, having its piston-rod in the form of a fine-threaded screw, on which a graduated disc revolves to regulate the amount of liquid emitted from the slender glass tube that constitutes the nozzle of the instrument), a very different result ensues. Some of the glasses probably remain permanently unchanged, as if nothing had been added to them; and those which do experience alteration show plainly, by differences of colour and of smell, that they are undergoing various kinds of fermentation, while the microscope shows corresponding differences in the characters of the bacteria found in them.

It is hardly needful to remark that if the ferments were dissolved in the water they would be equably diffused through it, and the same effects would be produced in all the glasses by the addition to each of the same quantity, however small. It is thus conclusively shown, so far at least as regards the fluids which I have hitherto made the subjects of experiment, that the material in water which leads to putrefaction or other fermentative changes in an organic liquid is not in a state of solution, but in the form of suspended particles, various in kind and, though present in great numbers, by no means equably diffused, but scattered through the water at various distances, like the amœbæ or other animalcules which people it. This will, I believe, be found to be a sure and important step in proof of the theory upon which the antiseptic treatment is based. But a practical paper like the present is perhaps hardly the proper place for discussing its bearings in this respect.

(To be continued.)

* For an account of the manner in which these conditions are fulfilled see a paper by the author entitled "A further Contribution to the Natural History of Bacteria, &c." (Microscopical Journal, Oct. 1873.)

HISTORY OF A CASE OF PYÆMIA IN PRIVATE PRACTICE,

IN WHICH RECOVERY TOOK PLACE AFTER EIGHTEEN ABSCESSES HAD OCCURRED.

BY FREDERICK H. DALY, M.D.

(Continued from page 267.)

SPACE now obliges me to condense the report of this case, and to omit all minor facts. I regret that I cannot continue the record of temperature, which I took twice daily during the whole of the illness. I shall now take up the report in weeks.

April 15th to 22nd.—During this period there was no important change. He had an attack of nettle-rash, which made him uncomfortable for a day or two, and during that time all the abscesses were dry; but as soon as the nettle-rash left him the wounds again discharged. His temperature varied from 101° in the morning to 104·4° in the evening. His tongue cleaned, and his appetite was good; his urine was normal, and he slept better at night. His spirits were bad, and he took three pints of champagne in twenty-four hours. The superficial ulceration over the sacrum has quite healed since he got on the water-bed. His pulse was about 110.

22nd to 29th.—During this period the abscesses continued to discharge irregularly: sometimes two or three would cease discharging for a day or two, and then it would return; the left thigh discharged more than half a pint one day, and the next day was quite dry. He ate fairly well, having meat every day, such as chicken or pigeon, and also having vegetables every day; but he gained no strength, and his prostration was extreme. He took five pints of champagne in twenty-four hours. He got so weak that the nurse required two helpers when the enema, which he had twice a week, acted; and he had to be lifted by means of a sheet passed under. He began to complain of pain in the right thigh and at the back of the right hip, also at the insertion of the left deltoid muscle; but I could detect no fluctuation, although the thigh became œdematous. He further complained very much of pain in the right heel; this apparently was due to pressure, for resting it on an air-cushion with the foot projecting relieved this distress. His temperature was the same as last week, but his pulse was quicker—morning 120, evening 130. On the afternoon of the 26th he shivered slightly. No sweating. He continues the drachm of tincture of iron and twenty grains of quinine daily.

April 29th to May 6th.—His feet are most painful and œdematous. I examined his urine almost every day, and on the 5th of May found that it was considerably albuminous; there were no casts. The following day there was only a trace of albumen, and the day after it was quite gone, nor had he again any return of it. His pulse during this week again rose to 140, the temperature varying from 101·2° in the morning to 105·2° in the evening. He also took during this week five pints of champagne, and four ounces of rum daily. He had no rigor or sweating. His appetite was fairly good. On the 30th of April all the abscesses were dry, except the left thigh, and there was distinct fluctuation in the right thigh and left arm at the insertion of the deltoid, and also behind the left axilla. Mr. Hutchinson saw him with me in the afternoon, and we opened the three abscesses. That in the right thigh was very deep, and contained a large quantity of pus. The following day (May 1st) the discharge returned again to all the wounds.

May 6th to 13th.—His feet and legs are more painful and œdematous; no albumen in urine, sp. gr. 1020; eats and sleeps well; pulse and temperature about the same; profuse discharge from the greater number of the wounds. Mr. Hutchinson saw him with me on the 6th, and thought him looking very badly. All the wounds except the right thigh discharge sanguineous pus. He looks most anæmic, the mucous membrane of the lips and conjunctivæ being almost colourless. Mr. Hutchinson suggested to give him half an ounce of the tincture of perchloride of iron, with twenty grains of quinine daily. To continue the same quantity of stimulants.

13th to 20th.—During this week all the abscesses continued discharging freely, and exhibited no inclination to

heal, the pulse varying from 120 to 130, and the temperature from 102° to 104·6°. He became also extremely hyperæsthetic all over. On the 14th Mr. Hutchinson visited him with me, and he made a counter-opening in the left thigh, as the matter lodged in quite a bag at the outer and under aspect of the thigh; and then passed a drainage-tube through from one opening in the thigh to the other. There was profuse discharge from the counter-opening. In consultation Mr. Hutchinson proposed to give our patient small doses of *mercury*. He advised the trial of mercury because our present treatment had not the least control over the formation of pus. We had hitherto found that whenever the discharge ceased from the abscesses a fresh one formed, or one which had ceased discharging began afresh. We therefore gave him two grains of mercury-with-chalk three times a day, and to continue his steel, quinine, and stimulants.

20th to 27th.—He continued during the whole of this week to take the two grains of mercury-with-chalk three times a day, and during the latter part of the week was certainly much improved, his morning temperature falling to 100·8°, but his pulse was never below 130. The discharge from the thighs and shoulders continued the same, and it ceased from the other abscesses, but they did not cicatrise. On the morning of the 20th I found a fresh abscess in the middle of the left arm, about an inch from the old one, but quite a distinctly fresh abscess. I opened it, and it discharged about four ounces of healthy pus. He was not aware of the formation of this abscess. It was perfectly painless. At my evening visit on the 20th he complained of severe pain in the right side, just at the lower margin of the ribs, over the liver. No jaundice. Urine normal. Neither auscultation nor percussion gave any explanation. The temperature was 104·2°. On the 21st he looked badly, but not yellow. I had ordered a large linseed poultice over the seat of pain, which relieved it considerably; but he says that he knows he is getting an internal abscess. No rigor; area of liver and lungs normal; no stethoscopic signs. On the 23rd the pain had quite gone, and all discharge ceased from the wounds; no rigor or sweating. A large abscess had formed in the left arm; midway between the shoulder and elbow I opened it, and it contained half a large slop-basin of healthy pus. Next day (the 24th) another new abscess formed above the left popliteal space, three inches higher up the thigh than the former one there; it contained two or three ounces of pus. In the evening there was again copious discharge from all the abscesses; appetite very good. So far the mercury has had no effect in checking the pus-formation. He continues half an ounce of tincture of perchloride of iron and twenty grains of quinine daily; he takes about four pints of champagne in the same time and four ounces of rum.

May 27th to June 3rd.—There is not much to note this week. His pulse and temperature continued the same; he slept remarkably well, and, as his appetite was now very good, I stopped the rum, and reduced his champagne to two pints, and this, together with a tumbler of Swiss wine, Veltliner, which he has with his dinner and much enjoys, is all the stimulant he has. He continues very hyperæsthetic; his feet are particularly so, and very œdematous. He had no abscess form this week, but the right thigh continued to discharge an immense quantity. The drainage-tube in the left thigh also discharged freely. The wound in the right shoulder and the three in the left shoulder have quite cicatrised. On June 2nd all discharge ceased; no rigor or sweating.

June 3rd to 10th.—On the morning of the 3rd I detected deep-seated fluctuation behind the right trochanter. His morning temperature was 103°; pulse 150. Mr. Hutchinson saw him with me during the afternoon, and opened the abscess behind the trochanter; it contained 3 oz. of sanguineous pus; he put a large drainage-tube into the wound. In consultation we agreed to discontinue his quinine (as mercury and quinine are supposed to be antagonistic) but to continue the mercury-with-chalk. It has had no effect upon the gums. He is still to take half an ounce of the tincture of perchloride of iron daily. His gums and lips are quite pale, quite exsanguined; so is the conjunctival mucous membrane. He is very cheerful, and can now feed himself. He now sometimes goes the whole night without requiring stimulants to be given by the night nurse.

(To be concluded.)

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

TWO CASES OF INSULAR SCLEROSIS OF THE BRAIN AND SPINAL CORD.

THERE are at present in Guy's Hospital two examples of the above-named singular and interesting disease—"sclérose en plaques" of French authors. A visit has convinced us that the characters of the disease are very distinct and recognisable, separating it widely from every other known kind of nervous affection.

The first case is that of Harriet B——, a healthy-looking woman, who was admitted under Dr. Moxon's care on the 24th February, 1874. She stated that she had never ailed in any way until two years before admission, when she first noticed weakness in her knees, and at that time she attended the hospital as an out-patient under Dr. Pavy's care. She continued to do so for seven weeks without benefit, and, finding the fatigue of waiting and the journey too much for her, she ceased to attend.

The weakness came on unaccompanied by the slightest indisposition. She felt well, only suffering from constipation, to which she had not previously been subject. She had no pain. Her attention was first drawn to her weakness by a difficulty she had in wiping her boots on the door-mat. She could give no reason for it. Her daily life was that of attending to her household affairs and occasionally assisting at table. Her husband was a steady coachman in good employment, so that she was not worried or in want. When walking she found it necessary to keep her eyes on the ground, because if she looked up her feet would drag, and she would tumble forward. She remained in much the same condition until September, 1873, when she found a difficulty in cutting up her food, her hands being not entirely under her control. Eventually both hands and arms began to shake unless she caught hold of something tightly. This trembling gradually got worse, and since November she had been unable to cut up her food, or to walk about without some assistance, such as the support of a chair. She never had any trouble with her water, and had no pain anywhere. During the two months previous to her admission every now and then she kept her bed, owing to a stiffness of her legs, over which she had no control. She could not flex the thigh on the abdomen nor the leg on the thigh. When up, she always sat in an arm-chair, because her body sometimes became extended whilst leaning backwards in the chair, and she wanted the arms of the chair to hold by to prevent her slipping to the floor. The progress was gradual and unattended by pain. There was no history of syphilis, no sore-throat, no rash, no miscarriages, and no rheumatism of the bones. She had not had diphtheria. She menstruated properly, but her bowels were constipated. She had not noticed any change in her voice. When a child she had a habit of stammering, but grew out of it. She also had a sister who used to stammer when a child, but she got the better of the habit at the age of eighteen, and was now living and well.

On admission she looked not at all wasted; indeed, apparently there was nothing the matter with her, and she lay in her bed perfectly still. Her tongue was moist and clean, and her appetite good. Her pupils were neither dilated nor contracted, and acted to light. Her manner of speech was remarkable; it was distinctly syllabic; she accentuated each syllable, and spoke distinctly, without clipping her words or running them together. There was no wasting of her muscles, and they felt firm. She could not grip one's hand firmly, but this appeared to be owing to nervousness rather than muscular weakness. Under the influence of electricity the muscles acted as in health. There was no loss of sensation and no numbness in the fingers. When standing up she felt the ground naturally. She could dress

herself, and could walk round the table if she held on to it. On sitting her up in bed she began to shake her head and body slightly, and on extending her arm her hand began to shake, and continued doing so for some time. She was able to write when by herself, but the writing was scrawled out and shaky, although the words were properly spelt. Urine: specific gravity 1020; no albumen, no casts, but a quantity of epithelial scales. The continuous current was recommended to be applied, and she was ordered a colocynth and hyoscyamus pill, with half a grain of extract of nux vomica, also the third of a grain of nitrate of silver three times a day.

March 2nd.—The continuous current was commenced.

8th.—She was confined to her bed on account of the stiffness of her legs, being unable to flex her thigh on her abdomen. On the following day, however, she was up again, feeling quite well, and she thought the galvanism did her good.

16th.—Her legs were drawn up, and she was quite unable to straighten them; this was accompanied by pain on the inner side of her thigh. This, however, ceased as soon as the leg was straightened, although it was drawn up again half an hour later. She was ordered six grains of powdered ergot every four hours, and atropine ointment for the pain.

19th.—The dose of ergot was increased to ten grains every three hours during the day. Some sphygmographic tracings were made, and it was observed that the ergot did not have the desired effect, for the tension in the large vessels was less after taking the ergot.

25th.—The patient remained about the same.

31st.—She had not had any painful drawing up of the legs since March 16th, although they had several times been stiff.

Her condition had steadily deteriorated in the course of the summer and autumn, and, no improvement having been made, she left the hospital on Nov. 26th. Her sensation when she left appeared perfect all over her legs, being able both to feel and localise the spot touched. Motion in both legs was entirely gone; she could not move them in the slightest degree, and when lifted had no power to prevent their falling again. The continuous current caused response of muscles only when applied over the course of the great sciatic nerve and its external popliteal branch. Even then the response was less than that in a healthy person. Faradisation caused a response of all the muscles, but it was not so violent as in health. The so-called muscular sense seemed somewhat impaired; if her legs were crossed she could not always tell the position of both, although sometimes she could do so accurately. The voice was not altered in pitch, but the words were delivered in syllables. The arms, while extended, trembled violently, more so than on admission, but by steadying even one finger they remained perfectly at rest. She had no trouble with her urine, being able both to pass and retain it at pleasure. She, however, required an aperient to open her bowels.

She was readmitted in December, still rather worse, her state varying slightly from time to time, but always perceptibly worse after the lapse of another month or two. Thus on

March 5th, 1875, she said that the movements of her head were less when she was out of bed. She passed urine better than she had done for some time.

9th.—The movements of the head were not quite so well, worse one day, better another. She felt very weak when she was got out of bed. Her hands shook about the same.

She has now been more than twelve months under Dr. Moxon's care in Guy's Hospital, and at present her condition is quite typical of insular sclerosis in its cerebro-spinal form. The curious speech, nodding palsy of the head, and quaking arms, with the stiffened helpless palsy of the legs, make the case unmistakable. The movements are not unlike those of paralysis agitans; but, besides the absence of shaking when the parts are supported—a means of distinction generally relied on by those who have described the disease,—Dr. Moxon draws attention to the semi-idiotic helplessness that marks the attempts at rising and at using the limbs, so that the patient is more obviously disconcerted and deranged by it. The eyelids rise often above the cornea, and the eyeballs quiver in their movement, and this adds to the impotency of the patient's manner. The patients make little complaint, have little or no suffering, generally wear readily a bland smile, and laugh trivially; in short, they differ from the subjects of paralysis agitans in that, besides the quaking palsy, there is evidence of sub-imbecility of the mental powers.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

CASES OF CATARACT.

(Under the care of Mr. POWER.)

THE following report is continued from page 439. For these and the preceding notes we are indebted to Mr. George Ernest Alford, house-surgeon.

CASE 5. *Blow on the eye; cataract; extraction.*—W. D——, aged sixty, an engine-driver, stated that three months before admission a lump of hot fat struck his left eye, as he was leaving the engine at night. It gave him great pain, and he tied the eye up for some days. Since then he had always "seen a fly before his eye," and lately the sight had got much worse. On admission, he had a well-marked cataract in his left eye, and there were no signs of any previous injury. The right eye was perfectly healthy. With the left he could nearly count fingers at six inches. He was kept in the hospital a few days prior to the operation, as he had a bad cough, and his bowels were freely opened with a purge. Mr. Power did a modified linear extraction on the left eye, and as some soft lens-matter remained afterwards, he removed it with a curette and scoop. Atropine was instilled, and a pad and bandage applied. He slept well, his appetite remained good, and his bowels were regular on the second day, but his cough was rather troublesome, and caused some throbbing in the eye, which was opened daily and atropine instilled. On the fifth day the pupil was seen to be clear, the corneal wound healed, and he could count fingers easily at a foot. He was allowed to get up. The next day, when a more careful examination was made, a small piece of capsule was found to be occupying the centre of the pupil. In the night he had had a severe fit of coughing, which caused violent throbbing in the eye and some effusion of blood into the anterior chamber. A week afterwards this was absorbed, but some capsule still remained. There was no pain, and the pad was left off. He was discharged on the twenty-second day after the operation, and with convex three inches and a half V=$\frac{10}{100}$; with convex three inches he read No. 16 Sn. No further account of him has been yet obtained.

CASE 6. *Cataract in a gouty person; extraction; iritis.*—M. B——, aged sixty-eight, a very stout, gouty old woman, came from Chelsea to have her left eye operated upon for cataract, which had been coming on for three years. With the left eye she could see to read very large print. Chloroform was given, and Mr. Power commenced a modified linear extraction; but, just as the section was completed, the lens and a quantity of vitreous humour escaped. An iridectomy upwards was then done. Next morning the eyeball had completely filled out. She was in no pain, and could see the light. On the third day a piece of iris was seen to be protruding from the wound; but, as it was apparently constricted at the cicatrix, it was not touched. On the next day she was ordered a purge, as her bowels were very constipated; and on getting out of bed she struck the eye against a chair with great force. This was followed by severe pain and swelling of the lid. Leeches were applied to her temple, and she was given a sleeping draught. The leeches were repeated on the following day, as the pain and swelling continued. On examining the eye on the third day after the accident there was found to be great chemosis with a haziness of the cornea; but she was able to see light. Four days afterwards the pain and swelling had subsided; but she was barely able to discern light. She went out twenty-four days after the operation, her eye still being very painful at times, the pupil displaced upwards and full of lymph, some protrusion of the iris still existing at the upper margin of the cornea, and just able to distinguish light from dark. Of the further progress of the case we are not yet aware.

CASE 7. *Senile cataract; extraction.*—C. B——, aged sixty-three, married, was admitted with a mature cataract in her left eye, which she stated had only been coming on two months. With the right eye V=$\frac{1}{4}$, and she read No. 1 Snellen. She could only see shadows with the left eye. Mr. Power removed the lens by the modified linear ope-

ration, without chloroform, no accident occurring, and no opaque matter remaining in the pupil. Atropine was instilled, and a pad and bandage applied. She slept well, and the eye was dressed the next morning, but not opened. Atropine was again instilled. Two days afterwards she got up, and one eye was uncovered. The left eye was looking very well. Her appetite was good, her bowels regular, and she slept well. She suffered no pain at all after the operation. The wound healed early, and she was discharged twelve days after her admission, with a perfectly clear pupil. Three weeks afterwards, with convex 3 in. V=$\frac{2}{12}$; with convex 2 in. she read No. 3½ Snellen.

CASE 8. *Traumatic cataract; extraction.* — E. B——, aged sixty, was cutting wood five months ago, when a chip flew up and struck his left eye. His right had been lost some years previously. The anterior capsule of the lens was ruptured, and the iris was adherent to it below. V=$\frac{2}{20}$; can read No. 20 at 6 in. Mr. Power performed a modified linear operation downwards. No vitreous escaped. A black patch of uvea was found on the lower margin of the lens, showing where the iris had been adherent to it. Atropine was instilled, and a pad and bandage applied. As he seemed restless, thirty grains of chloral hydrate were given him at night. He slept well, and had no pain the next day. On the third day it was dressed for the first time. The wound had healed. There was some soft matter in the pupil, and slight pain and inflammation in the eye, which, however, soon subsided. Ten days afterwards most of the opaque matter had been absorbed, but a small piece of capsule remained in the pupil. Sixteen days after the operation he was discharged with very good vision. When he again appeared, three weeks afterwards, V=$\frac{1}{12}$ with 4½ in. convex lens, and with 2½ in. convex he could read No. 1 Snellen.

CASE 9. *Senile cataract; extraction.* — J. B——, aged seventy-one, had a cataract of three years' duration in the left eye, and one of seven months' in the right. Mr. Power made a flap of half the circumference of the cornea with Beer's knife, and extracted the left lens without any difficulty. No chloroform was given; no iridectomy made; no speculum used; no vitreous escaped. After the operation the pupil was round, central, and clear. The eye was examined daily, and the wound had healed by the fifth day. No unfavourable symptom occurred, and she went out thirteen days after the operation. A fortnight afterwards she again appeared, having suffered from an attack of conjunctivitis, and the pupil was not quite clear. At that time, with convex 2½ inches she read No. 6; with convex 4½ V=$\frac{1}{12}$. She has not been seen since.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

CASE OF LARGE PELVIC HÆMATOCELE SUPPURATING AND DISCHARGING THROUGH THE RECTUM; COUNTER-OPENING FROM THE VAGINA; RECOVERY.

(Under the care of Mr. LAWSON TAIT.)

H. T——, aged thirty-one, dated her illness from the age of nineteen, when she had been chilled by immersion in cold water while menstruating. The discharge ceased suddenly, and had never reappeared, but seemed to be replaced by a profuse leucorrhœa. She had been a long time under the care of various practitioners without any benefit, and had become very exsanguine, emaciated, and feeble, suffered from night-sweats and general hectic symptoms. She came under treatment in May, 1872, and had noticed a week previously that with every motion there came a quantity of purulent discharge. The uterus was found to be imbedded in a mass which was slightly movable in the pelvis, and exploration by the sound discovered that its cavity was normal in size and direction. In the rectum a small boggy depression was found just within reach of the finger, and this was diagnosed to be the point of aperture of a large, suppurating, peri-uterine, and extra-peritoneal pelvic hæmatocele. After having had an explanation of her condition, and its probable fatal ending, she readily consented to the operation advised, and was admitted as an in-patient in July, 1872.

She was placed under chloroform, and Mr. Tait passed a long aspirator needle into the tumour close behind the cervix. This soon declared itself to be in a suppurating cavity, and the track of the needle was followed by a bistoury, by which an incision, free enough to admit the finger, was made. A wide drainage-tube was fixed in, and the patient was kept in bed for a few days. No symptoms of disturbance followed the operation, and the patient left the hospital in about ten days. She wore the drainage-tube for about two months, during which time she resided in the country.

The discharge from the rectum ceased about a month after the operation. In February, 1873, she had almost recovered her health, and the vaginal wound had nearly closed. In February, 1875, she presented herself, but she looked so ruddy and so well that she could hardly be identified as the same woman. The uterus is still the centre of a mass, but it is not a fourth of its original size, and it moves with a fair amount of freedom.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE meeting of this Society on the 23rd instant was occupied by a paper by Mr. WALTER RIVINGTON "On a Case of Pulsating Tumour of the Left Orbit, consequent upon a fracture of the base of the skull, cured by ligature of the left common carotid artery, subsequently to injection of perchloride of iron, after digital compression and other means of treatment had failed; with Remarks and an Appendix containing a chronological table, and a *résumé* of the recorded cases of intra-orbital aneurism." The author prefaced the narrative of the case with an historical *résumé* of the views and observations placed on record by previous writers. The first known case was described by Mr. Travers in 1809, as a case of aneurism by anastomosis; and the second by Mr. Dalrymple, in 1812, under the same designation. Notwithstanding the observation of Guthrie, in 1823, of a case in which similar symptoms existing on both sides were shown by post-mortem evidence to have resulted from an aneurism of each ophthalmic artery within the orbit, the views of Travers were generally adopted for many years as explanatory at least of the idiopathic cases of intra-orbital aneurism. Mr. Busk, in 1835, met with a case which arose gradually after a fracture of the base of the skull, and was able to cite the prior case of a boy under the care of Mr. Scott, in 1834, at the London Hospital, in which protrusion and pulsation of the eyeball supervened after an injury to the head occasioned by a fall into a ship's hold, and in which the subsequent occurrence of violent arterial hæmorrhage from the nose rendered it necessary for Mr. Scott to ligature the carotid, a cure resulting. Mr. Busk combated the views of Travers, and advocated the view that his own case, and previous ones, had been cases of ordinary aneurisms affecting the ophthalmic artery within the orbit. His paper had a marked influence on subsequent observers, as might be judged from the fact that M. Pétrequin, Mr. Curling, M. Bourquet, M. Legouest, Mr. Zachariah Laurence, M. Gioppi, Dr. Morton, and Dr. Schmid of Odessa, all diagnosed their cases as examples of aneurism of the ophthalmic artery; whilst M. Demarquay, Mr. Nunneley, Mr. Jos. Bell, and others, who have successfully opposed the view of Travers, have repeated, with reinforcements of their own, Mr. Busk's arguments. To Mr. Nunneley was due the chief credit of first directing forcibly the attention of pathologists in England away from the orbit to the vessels lying behind it, and he showed, from post-mortem observations in two out of six cases which he had met with, that the symptoms might be due to an aneurismal affection of the internal carotid artery in the cavernous sinus, or an aneurism of the ophthalmic artery within the skull. The record of Mr.

Bowman's well-known case by Mr. Hulke, in which no change was found in the arteries, but in which the cavernous, transverse, and petrosal sinuses were obstructed by clot, and M. Aubry's case of obliterated inferior petrosal sinus, and MM. Wecker and Richet's fatal case, were all so many indications that aneurisms within the orbit were only exceptional conditions. A brilliant light had been thrown on the pathology of the traumatic cases by the publication of two cases under M. Nélaton, in which all the symptoms had resulted from a direct communication between the internal carotid artery and the cavernous sinus produced by fracture of the base of the skull; and a similar case observed by M. Hirschfeld. These cases, and cases of spontaneous rupture of an aneurismal carotid, related by M. Baron in 1835, and M. Gendrin in 1841, were little known in this country until the publication of Dr. Delens' monograph, and Mr. Holmes's Lectures at the College of Surgeons.

The author's own case was briefly this:—W. C——, aged twenty-four, was admitted into the London Hospital in July, 1873, with a fracture of the skull. Six weeks later the patient heard a noise in his head like wind blowing, the eye gradually became prominent, pulsation of the eyeball was seen for a day or two, followed by the formation of a pulsating and thrilling tumour between the eye and the margin of the orbit. There was a bruit continuous with reinforcements, and the "bruit de pianlement" could be heard at intervals. At the time of the commencement of the aneurismal symptoms, Mr. Reeves was in charge of Mr. Rivington's wards, and carried out very thoroughly digital compression, without making any impression on the disease. Ligature of the carotid was discussed, but negatived at a consultation. A further trial of compression, digital, instrumental, and direct, having been made without effect, combined with veratrum, and the affection at the end of a year being decidedly aggravated, threatening extinction of vision and preventing work, an injection of five drops of a neutral watery solution of the perchloride was made; but this proving to be insufficient in quantity to cause sufficient coagulation in the dilated ophthalmic vein, and a second injection being impracticable on account of subsequent swelling, the carotid artery was tied by Mr. Rivington, and effected a cure of the disease, a slight bruit only remaining; but superficial ulceration of the cornea occurred a few days after ligature, and resulted in opacity.

The author then discussed at length the causation, symptoms, pathology, differential diagnosis, and treatment of the affection, the following being a few of his conclusions:—1st. Of 62 recorded cases, 29 were idiopathic and 33 traumatic; of the 29 idiopathic cases, 11 were affected on the left side and 13 on the right; whilst of 33 traumatic cases, 22 were affected on the left side and 9 on the right, the side affected not being mentioned in the others. Thus the preponderance of cases in which the affection had existed on the right side was entirely maintained by the traumatic cases. 2nd. Pulsation of the eyeball and a pulsating tumour might be absent, but no case should be regarded as one of so-called intra-orbital aneurism unless, in addition to exophthalmos and chemosis, a bruit was present. 3rd. The only true basis for the pathology of intra-orbital aneurism was the record of post-mortem examinations, to which allusion has been already made. By this the doctrine of aneurism by anastomosis had been negatived, and a variety of morbid conditions had been disclosed. (*Vide supra.*) 4th. It was of great importance to recollect that in 8 out of 12 cases examined after death, the ophthalmic vein had been found varicose and enlarged, and in 4 certainly had formed the pulsating tumour observed during life at the orbital margin. The distension of veins might reach to the bridge of the nose and forehead. After specifying the distinctive features of erectile tumours of the orbit, pulsating encephaloid cancer, spheno-orbital meningocele, and rejecting as efficient causes of the affection arterio-venous aneurism of the orbit, cirsoid aneurism, and aneurism by anastomosis within the orbit, and morbid conditions of the sympathetic nerves and ganglia, the author pointed out the necessity of studying the mode of occurrence of the symptoms, the nature of the paralytic symptoms of orbital muscles (if present), the character of the bruit and pulsating tumour, and other points, for the purpose of forming an opinion as to the pathological cause of the affection in any given case. Having discussed the means of treatment, and given the statistical results, the author showed that the symptoms might return in three different ways, that loss of vision might occur in cases treated by any method, or not treated at all, the result depending chiefly on the degree of interference with the circulation by the formation of coagula before anastomosing channels could be established. The conclusions as to treatment were:—1. Belladonna, digitalis, veratrum, and ice were worthy of a trial. 2. Digital compression should always be essayed. 3. Instrumental compression was more difficult and more likely to injure important nerves. 4. Galvano-puncture was not well suited for application to a thin-walled vein. 5. Coagulating fluids were adapted only for cases of arterio-venous aneurisms. 6. Ligature of the carotid was the remedy most generally applicable, but should not be hastily employed.

The author expressed his obligations to Mr. Holmes for his interest in the case, and for the supply of valuable information.

The reading of the paper was not concluded until nearly the usual time for the close of the meeting. The discussion was commenced by Mr. HENRY POWER, who observed that the disease must be a very rare one, since, out of twenty to thirty thousand cases seen in out-patient ophthalmic practice, he had not met with one case either of the true or the false form. And, on looking up Sir William Lawrence's book, he found that all his cases were communicated by Travers or others. Although the paper had so extensively discussed the various symptoms which might be diagnostic, he thought that in practice the diagnosis must depend on the general objective and subjective symptoms: the latter being chiefly the occurrence of sudden noise as of something breaking, the loss of vision, and possibly a bruit in the head; the former consisting in pulsation, protrusion of the eyeball, venous engorgement and chemosis, the occurrence of a thrill or bruit, and its disappearance on compression of the carotid. But in many cases men of great experience had been misled, as in one recorded in Virchow's *Archiv*, where the supposed aneurism turned out to be an abscess. As regarded the injection of perchloride of iron, no benefit could be expected from so small a quantity as five minims, and the method was a dangerous one. He would prefer ligature of the common carotid. In connexion with the subject, he showed a drawing of nævus in the eyelid of a child, which was extending rapidly backwards, and causing protrusion of the eyeball, which he had cured completely by a figure-of-8 ligature.—Mr. HULKE remarked that the true value of the paper would be apprehended when it was in print. The paper appeared to consist of two parts, facts and deductions therefrom. Mr. Rivington had expressed a confident opinion that none of the cases were due to aneurism by anastomosis. It must be remembered that this term had been used in very various senses. William Hunter was the first to prove that the so-called arterio-venous aneurism was aneurism by anastomosis. With regard to arterial nævus, he thought Mr. Rivington must have overlooked von Graefe's case (in the *Archiv f. Ophth.*) where a distinct encapsulated cavernous tumour was found in the orbit; and a similar one had occurred under Mr. Critchett at Moorfields. These cases afforded proof of its occurrence, and that it gave rise to symptoms resembling arterio-venous aneurism. With regard to the bruit, he doubted whether the tone had any diagnostic value; but the distinction as to whether it was continuous or interrupted, as pointed out by Nélaton, was of great importance. As to treatment, from experiments and the experience of himself and others, he regarded the injection of perchloride of iron into a vascular tumour as fraught with danger, unless the communication with the large vessels around can be entirely cut off. He mentioned a case in which such injection into a nævus over the sternum was followed by almost immediate death, and another where extensive sloughing took place, and he believed death ultimately occurred.—Mr. CURLING remarked that from the fact that the author had collected sixty-two cases of the affection, a false impression as to its frequency might arise; but when it was remembered that the cases were collected from all sources, and extended over many years, it would be seen that it was very rare. Still the surgeon should know how to deal with it. He himself had seen three cases—Mr. Scott's, his own, and Mr. Rivington's. As regards treatment, he thought that in traumatic cases, when occurring after severe injury or fracture, and when there was paralysis of the ocular

muscles, or commencing loss of vision, any other treatment than early ligation of the carotid was a mistake, other measures being useless. In idiopathic cases, however, other means might be tried first, such as digital compression, which, however, few patients bore well.—Dr. C. J. B. WILLIAMS called attention to the medical aspect of the subject, especially as regarded the resemblance of the symptoms in some cases to those of exophthalmic goitre. After sketching the ordinary symptoms of that disease, he dwelt more particularly on the dilatation of the carotid arteries and bruit in them, and the relation of these to the exophthalmos.—Mr. WILLIAM ADAMS stated that in Pravaz's experiments on the injection of perchloride of iron, he had found that one drop of the solution would coagulate one drachm of blood; hence Mr. Rivington need not regret not having injected more. Moreover, the perchloride solution always contained free hydrochloric acid, and acted as a caustic on the surrounding tissues, producing deep sloughing. He mentioned a case in which he had injected from three to five minims into an aneurism of the posterior tibial in a child, with satisfactory results.—Mr. HULKE said that in 1854 he made some experiments on dogs with Pravaz's solution; in one case he injected only two minims into a vein over the tendo Achillis, with the result of immediate death, and a firm coagulum was found to extend from the vein completely up to the right auricle of the heart.—Mr. CHRISTOPHER HEATH thought that Mr. Rivington had rested his diagnosis too exclusively on the bruit as felt by the patient and heard on auscultation. He mentioned a case in which the carotid had been tied for supposed intracranial aneurism, in which there was a loud bruit; the patient died, and no aneurism was found on a most careful examination. Moreover, in Bowman's case, which he himself saw, there was no aneurism to be found. Hence the fact of occurrence of even a loud bruit, and its cessation on ligature of the carotid, must not be accepted as any proof that an aneurism had existed. But he was not prepared to state what was the cause of the bruit in either case.—Sir JAMES PAGET thought that there were some points connected with the pulsation of these tumours which were of interest. Although he could speak from a much longer experience of St. Bartholomew's than Mr. Power, he had never seen a case of pulsating tumour of the orbit. But the conditions of pulsation of other tumours situated in bony cavities might throw some light on the mode of its occurrence. Any swelling lying in a bony cavity, even when there is no large cavity behind it, will pulsate. Thus, in a recent case of tumour in the antrum, in which there were no large vessels, there was distinct pulsation. Mr. Stanley had also collected and published cases of similar pulsating tumours of bone. A tumour of any sort in a bony cavity may receive a communicated pulsation from blood-vessels of small size in the cavity or its walls. Another similar condition often seen was that of a cavity in a necrosed bone filled with pus, in which the fluid resting there shows a distinct pulsation visible to the eye, though unappreciable by the touch. Such a hollow bone, with blood-vessels in its walls, is precisely similar to a bony cavity, such as the orbit, which, to complete the analogy, is full of fat, which is really fluid at the ordinary temperature of the body, on which the eyeball floats freely. Hence, if the pulsation of the ophthalmic artery and its branches be increased, there will always be pulsation of the eyeball, and so also if there be a hindrance to the reflux stream in the ophthalmic vein. He believed therefore that Mr. Heath was right in stating that there might not be aneurism at all in these cases; the pulsation might be cured by ligature, but this would not prove the existence of aneurism. Given obstruction in the ophthalmic vein, or the cavernous sinus, there must be increased pulsation of the ophthalmic vein, and of the eyeball itself. There would also be chemosis, deep swelling, &c., from the same cause. A parallel might thus be drawn between pulsating tumours in bone and liquids in bony cavities, and the conditions here observed.—Mr. RIVINGTON, in reply, dwelt chiefly on the objections to the perchloride of iron injection. He had used a neutralised solution, and injected it purposely into the vein, for he believed that the artery communicating with the vein the blood-stream was not running in the usual direction, and it must be remembered that arterial blood flowed from it when punctured.

The Society adjourned at a late hour.

MEDICAL SOCIETY OF LONDON.

AT the meeting on March 15th, after a vote of thanks to the late president and retiring officers, proposed by Dr. Aveling and seconded by Dr. Day, had been unanimously carried, the new President, Dr. ROUTH, delivered his inaugural address. After a few prefatory remarks, and after passing a high eulogium on his predecessor, Mr. de Méric, he proceeded to consider in what manner a medical mind would best regulate medical work. Referring first to the divine attributes and character of mind, he pointed out how strange it was that, amid much great and noble work done, the mind had in many instances fallen short of its powers. In religion, in law, and in medicine, there were marked evidences of error. Although in the end truth generally prevailed, in the progress of advancement much violent commotion took place, in medicine especially. In tracing the cause of this, he believed—1st, that it was due to a sort of moral Darwinism in its professors, who were prepared for progressive development, but opposed to abrupt and lofty transitions. Special subjects he considered as minor platforms upon which a medical mind must work, and although to be preceded by general knowledge and controlled within proper limits, they were evidences of progress, and had been too violently opposed. 2nd. Another cause which had arrested progress was, that we were apt to take too material a view of medical science. Facts were often material, but it was the manner in which they were used and explained which made the science; the same facts might be very differently construed. The struggle was one of mind, not matter; hence, in the confusion, some became so wedded to matter, that they actually looked upon mind as matter; but to make anything at all of the platforms of medical science, the power used must evidently be mind. The speaker mentioned the Contagious Diseases Acts as tending to materialise a woman. Although he admitted some moral good might incidentally be done, he feared the army and navy medical officers might themselves suffer from this materialisation, their mental capacities being disregarded, and they themselves being sometimes treated by their superiors as machines out of order. 3rd. Our great disregard for the discoveries of those who had preceded us constitutes another cause of arrested progress. By reference to art and architecture among the ancients, the speaker showed how they excelled us beyond comparison; and taking ancient Rome as an example, he demonstrated that their sanitary arrangements in the way of baths of every kind was far superior to that of London; the sewers were larger, the water-supply better and continuous. He referred to the subject of fibrinous concretions of the heart, discovered by Gould in 1684, described by him, subsequently by Chisholm in 1790, and forgotten till 1851, when Dr. Richardson disinterred these works and placed the disease beyond doubt long before Virchow or other continental writers had written about embolism and thrombosis. Dr. Routh then mentioned transfusion, originally practised on Pope Innocent VIII. by a Jew in 1492, forgotten till 1665, when experimented on in England by the Royal Society, and falling again into disuse till revived in England by Blundell, and now fully recognised as a proper operation. He next spoke of the controversy on the use of the speculum vaginæ which took place in London twenty-five years ago, showing it was used in the time of Domitian, and had been found in the ruins of Pompeii, and yet had been forgotten for centuries. He dwelt upon the question of cremation and burying in wicker baskets, both olden customs, yet now remembered and likely to be employed again. Other obsolete practices now coming into vogue were cursorily mentioned, all of which proved we erred in neglecting ancient usages in practice. Dr. Routh concluded by a peroration, pointing out the great discoveries of modern times, and looked forward to the grandest results in the future from the combined experience of past and present.

Dr. JAGIELSKI then read a paper "On Spirometry." He commenced by defining the word "spirometry," and by giving the meaning of the term "vital capacity" or "vital volume," paying eulogiums to the inventive and speculative genius of Hutchinson. He next proceeded to point out the various factors which influence vital capacity:—1. Under normal physiological circumstances, such as the height, the weight, the thoracic mobility, the thoracic circumference, the age, the sex; on each of these the author dwelt at some length, and illustrated the facts brought forward by tables. He recommended certain rules to obtain the quickest and highest value of vital capacity from the readings of the spirometer, and, being of opinion that the exercise of deep inspiration and expiration was beneficial to health, he advised all persons to cultivate singing, as he has observed people with even weak chests to have been benefited by the exercise of the voice. 2. Under abnormal circumstances, and in unhealthy conditions of the body, when the spirometer shows that the patient does not expel the normal quantity of air. The causes of this deficiency may be of a twofold kind: they may be general, and they may be local; the former including a feeble general organisation, a want of muscular power, a weak digestion, an impaired nutrition, disturbances of the mind, sorrow, anxiety, &c., and a tendency to pulmonary consumption; amongst the latter were mentioned flatulency, liver disease, ascites, tumour in the abdomen &c., congestion and inflammation of the lungs, pleuro-pneumonia, pleuritic effusions, &c. These general hints were followed up by special cases in illustration of the value of spirometry to detect disease when no other physical means would discover such slight changes in the lungs at so early a period as in miliary tuberculosis—a disease so little recognised at its commencement; and Dr. Jagielski considered that all cases where a diminished vital capacity is evident should be carefully attended to, and thought the spirometer of great help in most instances. Deprecating the way it was overlooked in many books on consumption and diseases of the chest, he went on to show the great use of the instrument to ascertain, roughly and readily, the pulmonary soundness of recruits, and its value in life assurance offices; he also thought it should be employed in prisons, workhouses, hospitals, &c, and should be conspicuous in the consulting-room of every physician and practitioner. The author concluded by discussing the "excess of vital capacity," upon which he always looked with satisfaction, as it was invariably in favour of the patient, and which he illustrated with several cases of Hutchinson's and Simon's. Dr. Jagielski exhibited his spirometer as manufactured by Mayer and Meltzer, and it certainly appeared to combine many advantages, such as correctness, convenient size and weight, and simplicity.—Dr. THEODORE WILLIAMS remarked that the subject had been largely discussed some years ago, in the time of Dr. Hutchinson, who had worked at it most laboriously. The spirometer had not of late been much used at the Brompton Hospital, as these instruments required a great deal of education on the part of the patients, particularly nervous women. He thought the instrument of great value in some cases; but considered it would be impossible to use it in acute forms of disease, such as acute tuberculosis, through fear of dyspnœa. He mentioned, *en passant*, Casella's spirometer as being of value, but labouring under a great disadvantage owing to the small size of the tube.—Dr. LEARED said he was sorry the spirometer had fallen into disuse at some hospitals; and exhibited an instrument of his own invention to measure the muscular movements of the chest.—Dr. JAGIELSKI responded; and the meeting then adjourned.

THE medical officer of health for the rural sanitary authority of the Richmond Union, Yorkshire, has just issued a report of the condition of his district during the past year. The death-rate for the period was 18 per 1000 annually. A considerable amount of the infantile mortality was attributed to improper feeding and the migratory habits of the population. Scarlet fever was imported into the neighbourhood from other quarters. Although the district is a purely agricultural one, great difficulty in obtaining the requisite amount of milk is experienced, a difficulty that Dr. Carter thinks would be overcome if owners of property would let portions of land at moderate rents, on condition of the tenants selling milk to the villagers at a fixed price.

Reviews and Notices of Books.

The West Riding Lunatic Asylum Reports. Edited by J. CRICHTON BROWNE, M.D., F.R.S.E. Vol. IV. 1874. London: Smith, Elder, and Co.

THE last volume of the Reports which are annually issued under Dr. Crichton Browne's auspices contains twelve articles of very variable merit on subjects connected with diseases of the nervous system. The opening article is an address delivered at the Asylum by Dr. W. B. Carpenter "On the Physiological Import of Dr. Ferrier's Investigations into the Function of the Brain." A recapitulation of the main facts of those experiments, and of the investigator's theories concerning them, is prefaced by an account of the general structure and functions of the nervous system so elementary that we turn back to see if the address was really delivered to a professional audience.

Dr. Hughlings Jackson follows with a short article "On Optic Neuritis," containing an account of a case, with chromo-lithographic plate. The object is to insist on the fact that the affection may exist without loss of sight, and may be entirely remedied.

An interesting paper by Dr. Ferrier, on the pathological application of his investigations, is founded on some illustrative cases collected from the asylum note-books. A preliminary glance is given at some of the objections to his conclusions, especially those of Dupuy and Burdon-Sanderson. With the conclusions of the latter he professes himself in complete accord, and denies that he ever intended to assert that the convolutions contained centres from which the impulse was sent directly upon the muscles. Epileptic convulsions he finds can be produced with quite as great readiness by the application of the stimulation to the posterior sensory areas as to the motor points about the fissure of Rolando, and it would appear as if in such cases the loss of consciousness occurred earlier in the train of symptoms. Some of the pathological facts are hardly in accordance with the results of experimental investigation.

The urine in general paralysis has been examined carefully by Dr. Merson, who finds that it presents very slight deviation from the healthy standard. The average excretion of urea is in slight excess, about two grammes and a half more than in health. Chlorides and phosphates are diminished, but the smaller quantity of the former may be explained by dietetic conditions. The specific gravity and quantity of the urine are normal. Calabar bean lessens slightly the quantity of urine and amount of the various solids, while alcohol produces the same effect in a more marked degree.

Dr. Milner Fothergill's long essay on cerebral anæmia is a collocation of the various opinions held and assertions made concerning that condition, in its several aspects and relations, most of which are purely hypothetical, and many sufficiently well known.

Dr. Benham, as the result of a series of experiments on the effect of local application of cold, considers that local temperature is very slightly influenced thereby, the general body heat being slightly lessened. Thus, the sedative effect of cold to the head must, he believes, be regarded as a purely nervous and reflex phenomenon.

To the article on "Inhibition, Peripheral and Central," by Dr. Lauder Brunton, we recently called special attention. It is the most valuable contribution the volume contains. All the complex phenomena of restraining influences, cerebral and spinal, are reviewed in a lucid and instructive manner in a paper which will repay a very careful perusal.

The microscopical condition of the brain in senile atrophy has been examined by Dr. Major, who finds that the con-

volutions present granular degeneration of the larger nerve-cells, simple atrophy of the smaller cells, while the so-called hypertrophy of the cells, which has been found by Rutherford and Tuke, depends on a peculiar transformation of the large pyramidal bodies, and is not confined to senile atrophy, but occurs also in general paralysis.

Dr. Crichton Browne's account of acute dementia is founded on twelve cases which have come under his own observation, and which he considers justify its separation from other forms of insanity, and especially from the atonic melancholia with which it has been confounded. The key to its pathology he finds in the feeble circulation, which shows itself in the congested extremities, chilblains, &c., but which we would submit is at least as likely to be a consequence as a cause of the cerebral symptoms. Cerebral œdema and meningeal congestions are the post-mortem appearances, and Dr. Aldridge has found that œdema of the optic disc and adjacent part of the retina exists in the profounder states of the affection. The treatment resolves itself into food and exercise, with occasional stimulation to the vessels, which, according to Dr. Clifford Allbutt's observation, can be given more effectively by the application of the constant current to the head than by any other means.

Nicotine has not been found by Dr. W. T. Benham to exert the depressing action on the heart which some observers have attributed to it. The first effect upon rabbits was to stimulate the heart's contractions, which continued long after all respiratory movement had ceased—in one case for nearly two hours. Its application to the surface of the contracting heart removed from the body did not lessen its action in force or duration, and in two cases in which the heart had ceased pulsating, the injection of a strong solution of nicotine into the left ventricle was followed by an immediate recommencement of the pulsation. He corroborates the statement of Hirschmann, that its effect is to cause contraction and not dilatation of the pupil.

The volume is quite up to the average merit of this series of Reports, and reflects credit on the industry of Dr. Crichton Browne's assistants at the West Riding Asylum.

Number, a Link between Divine and Human Intelligence. By CHARLES GIRDLESTONE, M.A. pp. 34. London: Longmans. 1875.

THIS is a little essay the argument of which is intended to prove the essential spirituality of human nature. The author utterly scorns the idea that man has been developed from the lower orders. He commences his argument by pointing out that number denotes quantity with precision. Next, that the law of gravitation, one of the most general laws known, is based on number. Then, that the faculty of number belongs to man and not to brutes. Then, that the sciences of astronomy and chemistry rest essentially on number as a basis. Finally, he proceeds to show that, the relations of number being uniform in the universe, by possessing the faculty of number, man comes into relation with and partially comprehends the operations of the Creator. Like most men untrained in biological science, the author has a wholly erroneous notion of Darwinism, and expresses himself with a flippancy that equals his ignorance upon the point. To wit, he says, according to the strict logic of probability, quite as cogent in its way as any other, he who, after weighing what can be said on both sides, should hold that the world made itself, or that once upon a time a brood of apes became men and women, would be rated as about equal in understanding to a modern thinker, if such a one there be, who, in sceptical defiance of scientific verities, should hold that the earth is not a globe but a flat surface. This is setting up an idol to knock it down. Many of the best biologists of the day believe in Mr. Darwin's theory, but not in this exposition of it. The way in which Mr. Girdlestone denies all idea of number to the animal creation is remarkable, and he coolly contrasts the highest efforts of an Euler with the numerical power of a quadruped; but he forgets that whilst an old hen will turn over every one of her dozen or more eggs each morning, even now there exist races of mankind who can scarcely count beyond twenty, the number of their fingers and toes. After commenting upon the amount of knowledge possessed by the pupils in our elementary schools, of the numerical laws of gravitation, of planetary motion, and of chemical combination, the author adds—and we commend it to the serious consideration of our readers—the profound reflection that, "when these laws are more widely studied, they will be more generally understood."

Mr. Girdlestone, quoting from Gambier on Moral Evidence, says that "when there is produced in favour of any proposition the highest kind of evidence of which it admits, and in a sufficient degree to outweigh all that can be said against it, it may properly be said to be proved." The word "all" here is a stumbling-block. The question in Darwin's theory is not of the existence of a Creater, but of the mode in which he works, whether by special interposition or by general laws, and we imagine that it will be a long time before *all* that can be said against either view is so stated as to bring conviction to every mind.

An Introduction to Human Anatomy, including the Anatomy of the Tissues. By WILLIAM TURNER, M.B. Part I., pp. 392. Edinburgh: Black and Co. 1875.

THIS work, by the well-known and able Professor of Anatomy in the University of Edinburgh, is a reprint, with, we observe, the introduction of several additional woodcuts, of an article that has just appeared in the first volume of the Encyclopædia Britannica, the ninth edition of which is in course of publication. As an article in that cyclopædia, chiefly intended for reference, it serves its purpose very well; but on looking through its pages we somewhat doubt the wisdom of publishing it separately. It is too long for any student to take up as an introduction to anatomy, too incomplete for the advanced student, whilst the general public would we fear be soon inclined to replace it on its shelf, and—leave it there. In saying this we do not mean to disparage the execution of the work, for the language is clear and good, though the author might have taken a hint from Bell in discarding the words anterior, posterior, inferior, &c., which repel the unlearned reader, and substituting the ordinary English equivalents. But it is self-evident that in an enormous subject like anatomy it is a matter of extreme difficulty to preserve the perspective of the several parts, and it is almost certain that some parts must be treated in detail, to the exclusion of others and equally important ones.

The order is rather unusual. For after discussing the bones, joints, and muscles, a chapter is interpolated on the Microscopical Anatomy of the Tissues. The nervous system is then taken up, and this is followed by an account of the organs of sense. In the original article it is stated that the vascular, respiratory, digestive, urinary, and reproductive systems are to be considered in different parts of the Encyclopædia, which, we think, is a defective arrangement. Professor Turner promises them in a companion volume to the present one.

The chapter on the Nervous System is the best one, and on this the author evidently writes *con amore*. It may be read with advantage by those who wish to learn the results of recent inquiries into the structure and relations of the cerebral convolutions. The work is illustrated by 114 woodcuts, many of which are original and instructive.

THE LANCET.

LONDON: SATURDAY, APRIL 3, 1875.

THE progress of the Conjoint Examination Scheme has been tantalising in the extreme. Occasionally we seem to be about to enter upon the millennium—the prize is in view, within our reach, but in the first step we take to seize it we pass it and it is gone. During the past three or four years the friends and the foes of the scheme have alternately had occasion to rejoice and to lament. At one time the scheme appeared to be all but *un fait accompli*—at another time the illusive dream of mad visionaries. One corporation after another, one licensing body after another, have approved of the one-portal system; one after another they have expressed their desire to co-operate to establish one examination board; but one by one they have sooner or later raised some objection to the conjunction, or at the eleventh hour have found that by the provisions of their charters they were unable to combine with other licensing bodies. Eventually, however, all legal disabilities were removed, the last one having practically ceased when the Council of the Royal College of Surgeons recently accepted the draft of the Enabling Act, which only now requires the sanction of Parliament to become law. With the adoption of this draft all the chief difficulties to a speedy co-operation of the various bodies appeared to have been removed, and nothing seemed to remain except the settlement of preliminaries of a formal combination of the College of Surgeons with the College of Physicians, the Society of Apothecaries, and the Universities. In light of present facts, it is scarcely too much to say that the Conjoint Scheme is at last really lost—if not altogether, at least for many years to come.

At a meeting of the Council of the College of Surgeons held on Wednesday, the 24th ult., a letter was read from the President of the College of Physicians respecting the resolutions accepted by the Council of the College of Surgeons on the motion of Sir JAMES PAGET, on Jan. 14th last. By a reference to THE LANCET of Jan. 23rd, it will be seen, according to the propositions of Sir JAMES, that the appointment of examiners should be divided among the co-operating bodies; that to the College of Surgeons should be assigned the appointment of no less than *ten* of the forty examiners, including therein not less than three-fourths of the examiners in Surgery; and that the appointment of the rest of the examiners, including one-fourth of those in Anatomy and Physiology and three-fourths of those in all other subjects except Surgery, should be left to the College of Physicians and the Society of Apothecaries. These and the other resolutions were unanimously accepted by the Council of the College, and were at once submitted to the President of the College of Physicians, who expressed in unequivocal terms his opinion of them in the letter just referred to. This letter was, we believe, very severe in tone, and expressed unqualified disapproval of the resolutions of the Council of the College of Surgeons. Considering that the resolutions—based as they were on the famous compromise by the Committee of Reference to the Council of the College of Surgeons in December last—were proposed by Sir JAMES PAGET, and were unanimously accepted by the Council, it is to be regretted that they were not deemed worthy of more than very summary judgment. The President of the College of Physicians characterised the resolutions—which, it is said, he declined to lay before the Council of his College or to accept as a basis of conference with the authorities co-operating for a Conjoint Scheme—as "a reversal of the proceedings of the co-operating authorities for the last three years," or something to that effect. Now there is, of course, no doubt that the resolutions, insisting as they do upon the appointment of examiners in Surgery on the Conjoint Board by the Council of the College of Surgeons, is opposed to the spirit of the scheme, as it first stood, as well as to the letter of it. But the whole of the blame does not attach to the Council of the College of Surgeons. The Committee of Reference made themselves responsible for the changes in the conditions of the scheme by offering the Council of the College of Surgeons the right to elect ten examiners to take part in the examination under the Conjoint Scheme. The Council of the College of Surgeons merely accepted and acted upon what from the first they had so strongly fought for. But it does not appear that the resolutions referred to were the the real *casus belli*. The dignity of the College of Physicians was impugned when it was linked with the Society of Apothecaries to appoint the examiners in Medicine, &c.

This is the most unfortunate *contretemps* that has occurred in the whole of the eventful career of the scheme; and we confess that we do not see how a satisfactory issue can result. The Council of the College of Surgeons has on previous occasions undoubtedly exhibited a conservative spirit; but it has at length yielded everything except the cherished right to appoint the examiners in Surgery. As at present constituted, the Council contains some men eminent as teachers, and a few pre-eminent; and the opinions of these men are deserving of consideration and respect. But the fact is, past experience has too clearly shown that no definite unselfish plan can be expected from those who are determined never to forsake their traditions nor to abandon their vested interests. A little more wrangling, a little more caprice, and we may hope that the Government—who will consider only the improvement of medical education and the advancement of medical art and science, not the dignity or even the existence of the old colleges and corporations—will undertake the formation of a Conjoint Examination Scheme, the one-portal into the ranks of the medical profession, on a wide and liberal basis.

A NATION keeps up a standing army to fight its battles, and a medical department to maintain it efficient in health and to provide for the succour and relief of its sick and wounded in war. Without systematic training and discipline the army would not be superior to an armed mob; nor would its Medical Service, if deprived of these, differ in any respect from a temporarily constituted body of volunteer medical officers. If the nation cannot afford to maintain a standing army sufficient for all possible contingencies,

there is the more reason that its quality should be good; and the same rule applies to the Medical Service. It is just as necessary for the medical officers of the army to be acquainted with and to practise the use of the machinery which they will have to work in time of war as it is for the combatant or engineer officers, if the machinery is to work smoothly. Those charged with the medical direction should know also the characters and capacities of the instruments they employ, so that on a declaration of war medical officers could be appropriated to the duties for which they had most aptitude. The head of the service should know the men who possess the character and capacity for administration, the most practical sanitarians, the best operators, and the best physicians; and he would then be able to dispose of his material to the best advantage of the service and with confidence in what he was doing. Should England take part in a European war, the military medical will be largely supplemented by the civil medical element, and the practical advantage of this information will then become manifest to all. The amount of hospital *matériel* required to provide adequately for the sick and wounded in a war of any magnitude is so large that its transport would alone prove a great obstacle under the most economical organisation, but on the regimental basis it would be an insurmountable obstacle. We may confidently appeal to the opinion of those who have knowledge and experience of modern warfare on this head; and whether we turn to the American or Franco-Prussian wars, or to our own campaigns in China or New Zealand, the experience is the same. The regimental system answered well enough when the British army was scattered by regiments and detachments over Great Britain and our colonial empire; but even now, when troops are concentrated in this country in standing camps and garrisons, the system entails great waste of professional power, and it is a source of fruitless expense in the useless multiplication of surgical equipment. Seeing, then, that the system is expensive and wasteful of energy in peace, inefficacious as a method of training for war, and inapplicable during war, is it worth retaining, whatever its other advantages may be? That the amount of foreign service would be more evenly distributed if the general system, under which all would have to go abroad in their turn, were adopted, is a matter of arithmetic; and it seems clear that a station hospital system would, after a time, diminish the number of expensive moves to which medical officers are now subjected in this country, and this in itself would tend to overcome the unpopularity of the system with the soldiers as at present worked. As regards this point, we have confidence in the soldier's being influenced, like other men, by those things which best conduce to his comfort and cure, and a station hospital, if properly administered, should do both.

The new organisation of the department is not a design of yesterday. Sir JAMES GIBSON was, it is well known, in favour of what it fell to the lot of his successors to see accomplished, however badly and imperfectly; and they arrived at their convictions in apparent opposition to their own regimental training, and with, it is to be presumed, a full knowledge of the probable unpopularity of the measure. Although this lends no support to the correctness, it strengthens one's belief in the sincerity of those convictions. Even had the reorganisation been effected with the utmost gentleness and consideration, the merits or demerits of the change were not likely to have been dispassionately canvassed until its influence on individual interests had passed away. Whatever be the merits of the regimental system, it involves the risk attendant on the service of two masters—that the medical officer may hold to the military and despise the medical. We know that there are many who regard the idea of there ever being a Royal Corps of Surgeons that will bear comparison in any way with the Royal Engineer Corps as utopian. It may be so; but the history of that corps shows that they were first retained in the army as civilians, that they received honorary or relative rank before their military position was recognised, and that even as late as about the time of the Crimean war they consisted of officers only, with an attached body of sappers and miners.

In addition to the disadvantage of being placed between the contending interests of the War Office and Horse Guards, the Medical Service consists of two parts, with opposed instead of identical interests. That which should be a source of strength in the direction of the service—viz., the common sentiment and interest of men held together by one and the same professional bond—is a source of difficulty and weakness. The direction of the department is, and always has been, blamed; and it is worth while inquiring whether this is attributable to any absence of professional sympathy, or to a lack of power on the part of the Director-General for the time being. The man who is to-day at the top was once at the bottom; he has shared in the common experience, and been subjected to the ties of a class interest; and it is, therefore, more consistent with common sense and experience to suppose that the fault lies in the lack of power commensurate with the responsibility of the position. And there are facts in abundance to corroborate this view, of which we may cite two. Sir A. SMITH's published minutes and evidence demonstrate that he had a better insight into the requirements for the Crimean campaign than the head of any other department, probably, at that time. He would have gone to his grave as a parsimonious, incompetent official but for public inquiry. Again, to take a recent incident. In an official letter from the late Director-General in 1870, quoted by Dr. HAMILTON, it was stated that the projected scheme of reorganisation would not, *if approved*, take effect for five years as regarded the then incumbents of regimental appointments. That it was not approved the Warrant of 1873 and the subsequent action of the Government have shown. The first great mistake was the precipitate and unnecessarily harsh cancelling of regimental appointments; the second was the attempt, when too late, to retrieve the error by a sort of compromise in the direction originally indicated, which has only tended to vitiate the principle of one system without restoring the advantages of the other. A Director-General is not simply to hold a brief as the advocate of his department, although he is bound to see that its interests are fairly represented and its efficiency maintained; not as if it existed by itself and for itself, but in relation to other parts of the military machine. Power and trust should bear a due relation to responsibility. The Medical Service is one also requiring technical knowledge and

scientific training on the part of its members, of whose individual merits a professional man must be the best judge. The regimental system has taught medical officers to lean on their military and not their professional superiors; and the influence of this has been injurious in more ways than one, and not the least so, probably, in its effect on the characters of the latter.

But it will be said that the organisation we have advocated has been weighed in the balance of practical trial and found wanting. That, however, we deny. A hybrid measure, with the defects of both systems, precipitately introduced and weighted with unpopular conditions and changes detrimental to the interests of those concerned, has; and a very little knowledge of human nature would not lead one to expect any new measure to be attended with much success under such circumstances. The only practical difficulty in the way of a thoroughly efficient organisation on the basis of a general corps is India, and this could be arranged by a modification which would not touch the principle. The outline of our scheme has been already given, and does not differ from that which we put forward years ago. Under it, a young man would pass through Netley, where he should attend a riding school, and be sent to do duty with a regiment as well as at the station hospital; after which he would proceed to some other duty in connexion with a hospital, the medical charge of a corps, or some special work for which he was best fitted. A common roster for foreign service; medical officers to be as little moved about as practicable when at home; promotion by seniority and selection—when the latter, the grounds to be stated, aptitude for their work being the chief ground; a system of administration by districts and station hospitals, with a properly trained and subordinate Hospital Corps; and the management and control of hospitals and everything appertaining to the sick to belong exclusively to the Medical Service,—these are among the main features of the unification we have advocated.

In conclusion, we have not attempted to elaborate the expression of views called forth by the War Minister's speech; these articles have been written on the spur of the moment without deliberation, although they undoubtedly embody principles deliberately arrived at, and we now leave them, either to be matured in time and by other hands, or to be cast aside should they fail to stand the test of experience. *Magna est veritas et prævalebit.*

THE actual frequency of newly described maladies can only be ascertained long after their discovery; and the time that is necessary is, roughly speaking, proportioned to the rarity of the disease. The commoner an affection is, the more rapidly does the knowledge of its differential symptoms and course spread through the profession. The more chronic also a malady is, the longer is it before any data are forthcoming from which to ascertain its frequency; because the chronic cases die most commonly under the care of the general practitioner, whose busy life leaves him too little leisure to keep himself informed of the symptoms of diseases which have, on account of their rarity, little claim on his attention, and it leaves him too little energy to pursue a pathological investigation which has no promise to him of practical result. It is probable that many children die every year in this country who have exhibited for a long time the symptoms of pseudo-hypertrophic paralysis; and yet we doubt whether, since the disease was first described, fifteen years ago, it has figured more than once or twice among the certified causes of death. Probably the majority of English practitioners have never heard of it, and it has obtained as yet no place in the systematic treatises on disease. The affection is undoubtedly rare; but at the same time it is not of the rarity which these facts would suggest. Every case which is recognised has been going on unrecognised for years; and it is therefore probable that many more cases occur, and run their course, the real nature of which escapes recognition altogether. Another reason for this circumstance is to be found in the fact that, although all cases correspond in history, symptoms, and progress pretty closely to a definite type, yet the instances are rare in which the more salient feature of the disease—great and general enlargement of the muscles—is obtrusively conspicuous. It is, doubtless, due to this that the cases were not distinguished as possessing special and definite characters until one or two of the best-marked examples which have hitherto been placed on record came under the keen eye of DUCHENNE, to whom must be conceded the credit of having been the first to call attention to its special symptoms. Since then examples have been recorded in almost every country; and the last volume of the Medico-Chirurgical Transactions contains careful accounts of two fresh cases—interesting, one from the thermometrical observations on the enlarged muscles, the other from the observations on the morbid changes in the spinal cord.

The enlargement of the muscles in this disease is due, not to true muscular hypertrophy, but to a growth of connective tissue between the fibres, and the deposit in that tissue of fat, sometimes to an enormous extent. The muscular tissue does not appear to undergo any marked primary change. Some observers have described the occurrence of fibres of larger size than normal, and dividing in a peculiar way; but the chief change which is presented is reduction in bulk and slow degeneration of the fibres, as if pressed upon by the growth of the interstitial fat. Other muscles waste, apparently, according to the observations of FRIEDREICH and others, from being the seat of a similar process of overgrowth of connective tissue, in which no deposit of fat takes place, the diminished bulk being the result partly of the contraction of the newly formed tissue, partly of the atrophy of the muscular fibres themselves.

The case recorded by Dr. MILLER ORD presented a surface temperature on the calf higher than that of the thigh in each leg, the difference amounting to from 1·8° to 3·9°. He believes that it is to be associated with the overgrowth of connective tissue in the muscles in which as yet no deposit of fat has taken place.

The contribution to the pathological anatomy of this affection which has been furnished by Drs. LOCKHART CLARKE and GOWERS is of interest from its definite characters. Disintegration in the central portion of each lateral half of grey matter in the upper part of the lumbar region appears to have been the most extensive lesion, and here

and there was scattered degeneration in the anterior horns. These facts, however, rather indicate the need for further observation, than prove, almost unsupported as they are by other cases, the central nature of the malady.

In many of the cases upon record the wasting has been so marked and general that the aspect of the patient has closely resembled that of one in the last stage of progressive muscular atrophy. Indeed, with the exception of the intramuscular accumulation of fat, it is not easy, by any histological character, to separate the two diseases. In the muscles which are not enlarged the microscopic characters resemble closely those of the muscles in some cases of progressive muscular atrophy; and this has led several observers, among whom is FRIEDREICH, to affirm that the two diseases are really the same; the special symptoms in the one being due to the early age, and perhaps to some peculiar constitutional condition. Yet the symptoms and course of this disease present characters peculiar to itself, which give it a very definite position in clinical pathology. Its limitation to childhood—to the early period of development, which is almost absolute—to the male sex; its strange tendency to attack many boys of the same family; the early involvement of the lower extremities, and especially of the gastrocnemii—muscles that rarely suffer early in wasting palsy; the excessively chronic and yet uniform course;—all these are features peculiar to itself, and which go far to substantiate its claim to an independent place in our nosology.

What that place should be is a question which may be discussed, but can hardly be decided until more facts are at our disposal than at present are available. The uncertainty which, as we pointed out a short time ago, still exists, in the opinion of many authorities, as to the nature of progressive muscular atrophy, is even greater in the case of pseudo-hypertrophic paralysis, and it is still held to be a myopathic affection by the majority of those who are entitled to an opinion. The hyperplastic character of the muscular change is, it is urged, unlike any known form of secondary degeneration; the distribution of the malady corresponds to that of no other central affection, and the positive results of microscopic examination of the cord should be uniform and invariable before the malady can, in the face of these considerations, be regarded as a disease of the central nervous system.

A MOST humiliating decision in regard to the case of a Philadelphian M.D. has been given by Lord NEAVES in the High Court of Justiciary with the concurrence of Lord Justice CLERK and Lord YOUNG. It will be remembered that a few weeks ago, at the instance of Mr. JOHN KIDD PEEBLES, the Procurator Fiscal of the Airdrie Justice of Peace Court, JOHN CHADWICK DE BANZIE was charged, under the Summary Procedure Act, before the magistrates of Airdrie, with violating the 40th section of the Medical Act, in so far as he had on several occasions, in Airdrie, falsely represented himself to be a Doctor of Medicine, or took such other title as implied that he was registered under the Act and that he was recognised by law as a physician or surgeon. He was found guilty, and sentenced to pay the statutory penalty of twenty pounds, or go to prison for three months. He paid the fine, and now pleaded in support of his suspension that, although by the Act in question he could not, not being on the Register, sue for recovery of his fees, yet there was nothing in the Act to prevent him, *a graduate in medicine at a foreign university*, practising as a medical man in this country.

The judges of the Court of Justiciary, on being appealed to, suspended the above sentence, and gave the suspender (the said JOHN CHADWICK DE BANZIE) expenses on the ground that, the charge against him being general and including more than one statutory offence, the conviction did not state specifically of which offence or offences the suspender was convicted.

This is a triumph for Philadelphian doctors and other possessors of worthless diplomas for which we were not prepared. Magisterial decisions in favour of such characters in country places do not so much surprise us; but that three of the leading judges of Scotland, in a High Court, should have reversed the decision of the sensible magistrates of Airdrie, in a case which, to our thinking, was as plain as possible, both surprises and discourages us. It is not much abatement of our regret to find that Lord NEAVES is careful to say that he by no means wished it to be understood that some of the handbills of the suspender, which were not creditable either to the party who framed or the party who distributed them, might not, particularly if accompanied with some oral testimony, have amounted to an offence under the Act; or to note that his Lordship's objection seems rather to have been to a vagueness or a want of explicitness in the charges, or of a proper definite finding in the conviction. The vagueness complained of appears to have consisted in not sufficiently differentiating between the two offences: one, that of a man holding no qualification at all and pretending to be a medical man; the other, that of a man holding a foreign degree pretending to hold a qualification acquired in this country, and to be either registered or entitled to registration. These seem to us very poor and punctilious objections in a case the merits of which were very clear. The diploma on the strength of which this man used misleading titles was procured from the Philadelphia University. These diplomas have of late been articles of the most unblushing sale without examination—so unblushing and disgraceful that the charter of the University was withdrawn, or about to be withdrawn, by the State. It was admitted that the title of M.D. had been used on the strength of this degree. And yet, because of some alleged want of clearness, not in the facts of the case, but in the mere statement of them, the Scotch judges reverse the sentence of the magistrates, and give a sense of triumph to Philadelphian doctors. Surely the case should have been judged on its merits by the High Court of Justiciary. Law is brought into contempt when objections to mere points of conduct and statement are allowed to have such weight as in this case. There cannot be any reasonable doubt as to the breach of the 40th section of the Act, as to the worthlessness of the diploma, or as to the essential justice of the conviction by the Airdrie magistrates. Those who bring to light the worthless character of diplomas which are made the justi-

fication of titles that seriously mislead the public deserve the support of the law and of the superior courts. When an appeal of this Philadelphian sort came before the Court of Exchequer in 1872 in the case of ANDREWS *v.* STYRAP, all the judges were of opinion that the conviction by the magistrates of Shrewsbury should be confirmed, and they dismissed the appeal with costs. Baron MARTIN expressed his satisfaction that measures were being taken by the Legislature in America to suppress this issue of spurious degrees by the University of Philadelphia. How different, in effect, is the conduct of the Scotch Court. Let us hope that the case will be brought up again, more carefully stated, and that the Medical Council will indemnify those who seek to uphold the Medical Act. If this is not done the Act will be brought into serious contempt.

Annotations.

"Ne quid nimis."

THE PRINCE OF WALES'S VISIT TO INDIA.

MANY persons in this country, with little or no personal knowledge of India, are very apt to regard it, from a medical point of view, simply in connexion with the diseases incidental to a tropical climate. India is so indissolubly associated in their minds with intense heat, that they are altogether forgetful of the fact that it is a very big place with almost every variety of climate, that a tour undertaken in the cool season is one thing, and a residence in the plains during the hot season quite another. The climate of the plains from about the middle of November to the beginning of February is excellent, and travelling then both enjoyable and salubrious; and as to the climate of the Punjab and North-West Provinces, where the cool season continues longer, it is confessedly one of the best in the world—cold and invigorating up to March or longer. It is to be presumed that the whole period embraced by the Prince's tour will extend between November and March, when there is really no fear whatever of the occurrence of any of the ordinary climatic diseases of India.

The records of meteorological observations are available at almost all the stations in India, whether in the plains or on the hills; and, the climate of these being known, the route can be easily planned, we imagine, so as to fit in with the best periods for visiting the different places within the limits of the allotted time. It is far more probable that the Prince of Wales will have to guard against the effects of cold than of heat. We may be quite confident that, with the intimate personal knowledge of the country possessed by the different officers who accompany His Royal Highness, there will, practically speaking, be no more risk, and probably far more enjoyment and political utility, attending his tour in India than a similar one in any other country.

MIDWIVES AND PUERPERAL FEVER.

IT has been not unnaturally inferred from the acquittal of Elizabeth Ingram at the recent Warwick Assizes on a charge of manslaughter, that a midwife, though reeking with contagion, might ply her trade and with impunity, and bear infection to whomsoever she attended, despite warnings from coroner and doctor. The decision given at the assizes held subsequently at Manchester in the case of Elizabeth Marsden, however, removes any obscurity that may have surrounded this matter, and shows that a midwife who is tainted with contagion may be prevented from following her occupation until she shall have taken measures deemed sufficient to remove all taint, and that should she neglect such precautions, she may be prosecuted and convicted of manslaughter. We had recently to record the committal of the prisoner in question by the Salford magistrates for having caused the death of two of her patients by conveying to them puerperal fever in their confinements. Bail was refused. On March 17th this case came for trial before Mr. Justice Field, at Manchester. It appears that Marsden had during the month of January two fatal cases from puerperal fever among her patients. On the 26th of January a medical man saw one of the cases in question, Margaret Carroll, and, having found it to be puerperal fever, informed the prisoner of the fact, and warned her of the danger incurred by anyone attended by her; he further warned her to refrain from following her occupation for two or three months, and to go to the country to free herself from all contagion. She was similarly advised on several subsequent occasions. She, however, took no heed, but in February attended a woman named Goodear; this patient died on February 16th. On February 15th the prisoner attended one Mrs. Mills, and she died on February 19th of puerperal fever. With the last-named patient's death the prisoner now stood charged. She was found guilty, and sentenced to six months' imprisonment.

It appears from the results of this trial that a midwife, warned of the nature of a contagious disease which has appeared amongst her patients, is legally responsible for any death caused by her through the transmission of the contagion after such warning, unless she shall have taken due measures to free herself from the contagious taint. The action of the Salford magistrates in refusing bail in this case is highly to be commended, for by this means one source of contagion was absolutely stamped out; whereas, had bail been granted, the prisoner might have continued spreading the disease until the time of her trial. Should similar committals have to be made in future, bail should be refused, or granted only on condition that the offenders refrain from following their occupation until their trial is over.

MEDICAL SCALE FOR EMIGRANT SHIPS.

THE Board of Trade have just issued a new scale of medicines and medical stores for use in emigrant ships. This list has not come a day too soon, for the old scale had existed, we believe, since the Emigration Commission commenced work, and was sufficient only for the days when mercury and Epsom salts were considered to be transcendently the two things needful afloat.

It is to be observed, in the first place, that in the list now before us one scale, instead of two, has been compiled, half the quantities only being required when the passage occupies less than one hundred days. This latter arrangement of course includes a large proportion of emigrant ships, and excludes those bound to Australia and New Zealand. In glancing over the variety of drugs ordered, we find three so-called disinfectants—chloride of zinc, carbolic acid, and permanganate of potash,—all of which can hardly be necessary. Nitrate of silver is conspicuous by its absence, and has probably been omitted in error. All pills are to be ready-made, in five-grain doses: a very useful rule, which those of our nautical readers who are called on to dispense afloat, when the wind is "abeamy" will highly appreciate. Additional quantities of quinine and anti-choleraic preparations are to be taken to all tropical ports, and a neutral solution of morphia is provided for hypodermic injections. The medical stores appear amply sufficient both in quantity

and quality, though, even for short voyages, we cannot, having regard to surgical exigencies, say that there is more than enough. The shipowner will probably not be pleased at having to provide a case of instruments, but it is right that he should do so, or should make an allowance to the surgeon if the latter choose to provide them. It appears to us that the list of these instruments should be slightly amplified, so as to include probe, director, and two or three other so-called "minor requisites." The medical officer would then be quite independent of a pocket-case, and the instrument-makers will soon furnish a case and include it in their lists as the "regulation" emigration or merchant-ship case, analogous to that provided for surgeons in the army and navy.

We have noticed this scale somewhat in detail, because it is a subject of some interest to a large and increasing body of medical men, who, unlike those ashore, cannot find an instrument-maker or a druggist round the corner, and hence may fairly claim to criticise the quality, quantity, and variety of stores officially furnished for the treatment of their patients.

TRANSPORT AND INOCULATION OF VIRUS BY FLIES.

AN interesting paper on this subject from the pen of a French veterinary surgeon, M. Mégnin, appears in the second number of Robin's *Journal de l'Anatomie*. M. Mégnin observes that the idea that the spread of charbon or the "pustule maligne" amongst cattle is due to the introduction of the poison by the prick or bite of flies is widely spread, both amongst the populace and men of science; some of the latter indeed, like M. Davaine, going so far as to maintain that the inoculation is always effected by this means, notwithstanding the fact that charbon has been known to be propagated in severe winters, when not a single fly could be detected in sheds or stables. So recently however, as October, 1869, M. Raimbert reported to the French Academy of Sciences some precise experiments he had made, from which he concluded that the flies effecting the transport of the poison were not such as possessed pricking instruments (*mouches piquantes*), but those with soft probosces; that such flies, having fed on decomposing or diseased substances, carried the poison by means of their feet wings, or proboscis to healthy animals, and that the poison possessed the power of penetrating the skin. In another memoir, presented by M. Davaine in 1870, who had worked at the subject independently, the same conclusion was arrived at in regard to the fact that flies with soft proboscs, like the common bluebottle, were capable of communicating the poison; but this observer was of opinion that some lesion of the skin must exist, and hence imagined that in the majority of cases one or other of the biting flies belonging to the Tabanidæ or Stomoxidæ was the real culprit. M. Mégnin calls attention to a remarkable report made by M. Tiserant, of Lyons, on a formidable epizootic affection that ravaged the plain of Condrieux in the Department of the Rhône, and which he found to be due to the Simulium maculatum belonging to the Tipulidæ, a family of Diptera. The bites of this insect produced sharp pain and swelling of the part, followed by colic, dyspnœa, tumultuous action of the heart, and death in from four to twelve hours. M. Mégnin had the opportunity of watching the effects of multitudes of these flies in the garrison of St. Mihiel, in 1869; but, to his surprise, though the animals were covered with them, and severely bitten, no serious effects were observed He consequently considers himself justified in drawing the conclusion that two conditions are requisite for the transportation of poison by flies—first, that there is an animal already affected with charbon; and then, that certain flies, amongst which the Simulium, Stomoxis, and Tabanus deserve special mention, feed on them, and by their bites transmit the poison to healthy animals.

THE CASE OF MR. EDWARD PEACOCK.

DR. BRAXTON HICKS has done good service in writing the letter published in our columns last week, in which he pointed out the danger attending the practice of midwifery. These difficulties, whenever they occur, are of the most urgent character, and demand prompt and immediate action, on which depend, in a great majority of cases, one or two lives. The responsibility naturally felt in such cases is no light burden, and it would be very unwise and unjust to increase it unnecessarily. If, however, the sentence of six months' imprisonment passed upon Mr. Edward Peacock be carried out, there can be no question that that burden will in many cases be immensely increased. An action for malpractice and infliction of damages, where there has been marked want of skill, are processes which recommend themselves to every one's sense of justice; but an action for manslaughter, conviction and imprisonment for an error of judgment, even were it shown to have caused death, appear eminently unjust. To Mr. Peacock happened what had happened before to many obstetricians, and some skilled practitioners have done in similar circumstances what he did in the case referred to—that is, remove a portion of the intestine which had descended through the rent in the vagina. What object there can be in the imprisonment of Mr. Peacock, or what good it can attain, it is difficult to see. It will not tend to prevent the commission of crime, which is and should be the object of all infliction of punishment, for it is impossible for punishment, however severe, to prevent errors in judgment in positions of the greatest difficulty, such as are thrust suddenly upon practitioners of midwifery. On the other hand, the fear of the legal consequences following any such mistake will be likely to discompose the doctor placed in such unenviable position, and lead to the very issue which it is intended to avoid. Neither to the community nor to Mr. Peacock does it appear possible for good to result from his imprisonment, and it is to be hoped that measures will be at once taken with a view to obtain the remission of the remainder of his sentence.

SMALL-POX AND ANTI-VACCINATORS AT KEIGHLEY.

AN epidemic of small-pox has prevailed in Keighley during the past three months, and yet the Anti-vaccination League appears to have numerous supporters in the town. The Rev. W. H. Rothery, of Cheltenham, the President of this League, addressed two public meetings in Keighley last week, at which the conduct of the guardians of that parish in refusing to prosecute non-vaccinators, although threatened with a *mandamus* by the Local Government Board, was held up as an example which should be followed throughout the country. The President of the League, after an attempt to prove by figures that the mortality of vaccinated children and adults was greater than that among those who were unvaccinated, concluded by publicly setting fire to the Vaccination Act. The Local Government Board are evidently in a difficulty with regard to this board of guardians, who refuse to prosecute for non-vaccination, and declare themselves ready to go to prison rather than take such action even on a *mandamus* from the Local Government Board. In the meantime, however, small-pox continues to prevail fatally, and the bench of magistrates have written to the Local Government Board, asking that the guardians may be forced to do their duty under the Act. Dr. M. W. Hilles, the medical officer of health, has

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published some figures in a local paper which would carry conviction of the utility of vaccination to the minds of the most obstinate anti-vaccinators, if such persons were ever amenable to reason. Dr. Hilles states that all the six cases that occurred in January were unvaccinated, and of these five, or 83·3 per cent., died. During February, of forty-four cases, twenty-six were vaccinated, of which two, or 7·7 per cent., died; fifteen were unvaccinated, of which nine, or 60 per cent., died; and the remaining three were doubtful cases. Up to March 25th, the date of Dr. Hilles' communication, sixty-three cases had occurred during the month, and again the mortality has been nearly confined to the non-vaccinated cases. Only one case of an unvaccinated adult attacked with small-pox has terminated favourably. The action of the Local Government Board in this matter is of the gravest interest. If it were certain that the epidemic of small-pox could be confined to the Keighley Union, its guardians might perhaps be allowed to indulge in their fatal objection to compulsory vaccination, but, in the manifest impossibility of such an arrangement, the interests of the public at large demand that the central authority shall, in this instance, over-ride the local authority.

THE HEALTH OF JEWS.

No problem in sociology is more interesting than that of the position and characteristics of the Jewish race. Attention has lately been called to some of their special social relationships in an article in the *Jewish Chronicle*. Amongst the interesting facts mentioned is that the proportion of male children born is greater than among Christians in the same localities. The excess of male births among the Jews is said to amount to 18 per cent., while among Christians it is only 6½ per cent. Nevertheless, if all ages are compared, there is a much greater excess of Jewish females than among the Christian population, and this seems due to the greater longevity of that sex among the Jews.

The health of Jews is, as a rule, remarkably good. They suffer in a very slight degree from hereditary diseases and from prevailing epidemics. Dr. Stallard pointed out years ago their immunity from scrofula. No doubt their intermarriage, the race being pure, has some influence in excluding extraneous sources of hereditary disease. Their freedom from prevailing epidemics has frequently been observed, and has been recorded with reference to plague, typhus, intermittent fevers, dysentery, and cholera, and no doubt it is to be ascribed in great measure to the greater care with which they observe some hygienic precautions. Their poor are not, however, remarkably cleanly in their habits, and suffer much from such diseases as ophthalmia and many skin diseases. The average longevity of Jews is asserted to be, in consequence of various causes, greater than that of Christians by about five years. If this fact be substantiated by wide and careful statistical information, it is of great importance with regard to life insurance, and Jews should be admitted at a more favourable rate than Christians. No doubt this greater longevity is in part due to the great care which Jews exercise over their children, their poor, and their infirm. Among the Jews these rarely escape careful tending, whereas among the rest of the population they are too often allowed by neglect to become the prey of disease and death. Another cause, to which no small influence must be ascribed, is the circumstance that the callings of Jews are rarely such as involve great hazard to life. The occupations which involve the largest mortality—publicans, butchers, bakers, miners, labourers among dangerous machinery—are never followed by Jews, because incompatible with the due observance of their Sabbath. They follow occupations which allow them freedom, and as a rule choose some department of trade. This fact alone will go a long way towards explaining their comparative longevity, the average life of tradesmen being about ten years longer than that of labourers in large towns.

THE HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE annual general meeting of this hospital was held last week, when a very satisfactory report was presented. The receipts were stated to have been amply sufficient to cover the expenditure, and in every way the hospital had been progressing favourably. In seconding the adoption of the report, Mr. Chandler, to whose exertions, joined with those of his sister, the hospital owes its present position, stated that an endeavour was being made to open an additional self-supporting wing for the genteel poor. He added that such accommodation was much wanted in London, and that there were many who would be too happy to pay for bed and attendance in hospital if they could obtain it, but that he believed no such charity existed. Three or four hundred pounds would be required to defray the necessary expenses of the project, and it was hoped that this sum would soon be contributed. We cannot but congratulate the authorities at Queen-square on this step, and perhaps we may be permitted also to congratulate ourselves. Our comments on the subject of hospital accommodation for this class of patients will be fresh in the memory of our readers, and are too recent to require more than a passing reference; and they may probably have had some influence in determining the adoption of this plan. At any rate, there could be no fitter sphere for a thorough and fair trial of the system of self-supporting hospitals. The hospital at Queen-square has from the first been free from even a suspicion of any of the defects and faults of many of the special hospitals in London. It has numbered on its staff many of the most distinguished physicians of general hospitals who have devoted themselves to the study of nervous disease, and its admirably arranged special appliances for the treatment of these disorders, and the opportunities it affords for their investigation, have always been freely open to the profession, and have been widely utilised both by English and foreign practitioners. If Mr. Chandler should succeed in his praiseworthy attempt, it will not be amongst the least of the benefits he has conferred upon the profession and the public, and it will form a worthy sequel to the charitable work so ably commenced and supported by himself and his sister. We trust that the success will be so complete as to lead to the adoption of the plan by many of our general hospitals.

IS FOOTBALL DANGEROUS?

THE death of Sydney Branson, a promising student of St. George's Hospital, from injuries received during a football match, has provoked a discussion in the daily press as to the dangers attendant on that game. In answering the question, "Is football dangerous?" we would distinguish between the game as played by boys and as played by men. With respect to boys, we believe the game, even the much-abused Rugby game, to be as safe as any other athletic pursuit, provided always that the boys engaged in it are sound and healthy. If a boy is feeble or liable to any scrofulous tendency, he ought to be prohibited the game, for in such a case the effect of even a slight kick or wrench might cause necrosis of a bone or disease of a joint. Our Sanitary Commissioners, during their recent visit to the public schools, have made a point of inquiring into the effect of the various school games on the health of the boys, and the universal testimony of the masters is that the health of the school is at its best during the football season. As a matter of fact, by a process, we suppose, of natural

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selection, it is only the strong healthy boys that engage in the big matches, in which alone injuries are likely to be received, and these are extremely rare. Perhaps once in three or four years there may be a fractured radius or tibia at a given school. Certainly these accidents are not more frequent than those occurring in the cricket field, or in the racket court, or in a spin across country in "hare and hounds."

With grown-up men the case is different. Football is essentially a rough-and-tumble game, and a man does not fall as lightly or as cleverly as a boy can; a collision which simply "knocks the wind out" of the latter may seriously injure or even rupture some important organ in the former. But the case is more dangerous still to young men engaged in sedentary occupations all the week, and who get a chance game on Saturday only; in their case the muscles are relaxed, and consequently they have less perfect control over their movements, and therefore are less able to keep out of danger and avoid collisions by those instinctive muscular actions which would save a man whose muscles were in perfect tone. The intense strain that a football match requires must act most injuriously upon an untrained man; it is not uncommon at a football match to see men, of the class we are describing, become faint and vomit after a charge or "scrimmage." We would not discourage any manly sport, but we would insist that in every case the physical exertion should be adapted to the age, strength, and habits of the individual.

"EXPERIENCED SURGEONS" AFLOAT.

WE have received another communication from a shipowner on this subject, headed by the following advertisement which was taken out of the *Daily Telegraph* of Feb. 26th:—

"Surgeon—Australia—with or without diploma, can have a cabin passage out, sail Monday next, on condition he gives services on board if required.—Call on ——, City."

This, and other evidence published last week and on many previous occasions, tend to show that the quality of medical as well as general vital material carried in our merchant ships is not always the best. We are the more disposed to insist upon this fact, and upon the necessity for an examination into the circumstances connected with it, because some ship-surgeons have repudiated its existence with scorn, and decline to believe that the flock to which they belong contains any black sheep. "An Old Shipowner" asks us (1) how a person without a diploma could be designated a surgeon? (2) how without a diploma he could practise on board a British ship as a surgeon? and (3) how, if he was a surgeon, but unregistered under the Medical Act, he could issue any certificate of birth or death? All these questions are pertinent and practical enough. The 230th section of the Digest of Statutes relating to Merchant Shipping tells us that "every foreign-going ship having 100 persons or upwards on board shall carry on board as part of her complement some person duly authorised by law to practise as physician, surgeon, or apothecary," and we must wait until the official returns moved for by Captain Bedford Pim appears for information as to how often this clause has been evaded or disregarded. Meanwhile it is sufficiently evident that the Board of Trade, worried by Mr. Plimsoll, and already overburdened with ordinary administrative work, has no time or machinery to employ on sanitary matters. They have no professional staff at Whitehall, but are nevertheless responsible for the general qualifications of all medical officers doing duty afloat in the mercantile navy, for the quantity and quality of medicines and special antiscorbutics (as lime- and lemon-juice) supplied to sea-going ships, for the registration of causes of death at sea, and for the entire conduct of emigration business; and they (or some other body) should also be charged with the medical inspection of seamen, and of all school-ships and training-ships to which the proposed grants are given. The system of borrowing professional aid from other departments has at last been given up as regards law business, and it is time that the chief officials at Whitehall should have also some permanent and responsible medical officer for purely professional and hygienic work afloat.

THE BIRMINGHAM MEDICAL INSTITUTE.

THE friends and admirers of homœopathy will no doubt be highly gratified at the decision come to at the first annual meeting of the Birmingham Medical Institute, held on Wednesday last. On Mr. Alfred Baker moving the adoption of the Report of the Committee, Mr. Oliver Pemberton proposed an amendment disapproving the action of the Committee in admitting professed homœopaths as members without first taking the opinion of the profession on the question. The amendment was lost by a majority of twenty-nine, thirty-five voting for it and sixty-four against it; and no doubt the professors of homœopathy will in future be received with open arms into the Institute by those members of the profession who have gone out of their way to declare themselves champions of the doctrines and practice of homœopathy. This resolution is in some sense a victory for the friends of the homœopaths, but it is a victory which must involve the downfall and destruction of the system that it appears to foster. For ourselves, we regret that the members of the Birmingham Medical Institute should have allowed their judgment to be influenced by any of the false notions of fairness and policy advocated in the local lay journals. Mr. Pemberton has, single-handed, fought valiantly in a cause that was deserving of the fullest support from every practitioner of rational medicine, and he may be assured that, whatever misrepresentations his conduct may be subjected to in Birmingham, he will receive the thanks and the best wishes of the great bulk of the profession. His demand was reasonable, and should have been granted without hesitation. All that he asked was, that medical practitioners should not be admitted members of the Institute so long as they assume a mode of practice and maintain a name calculated to mark them from the general body of the profession. If homœopaths generally would come forward and publicly renounce the name of homœopath, as Dr. Dudgeon has done, matters would be very different.

HIGH GERMAN TESTIMONY TO ANTISEPTICISM IN SURGERY.

A SHORT communication of high interest both in a scientific and in a practical light is contained in the *Edinburgh Monthly Medical Journal* for March, 1875. We refer to a paper by Professor Volkmann, of Halle, on the subject of Antiseptic Osteotomy. Professor Volkmann has lately performed osteotomy somewhat extensively. He believes that Lister's mode of dressing is so effective in the prevention of local and constitutional reaction that a successful termination of such operations may be guaranteed. Apart from the clinical facts which he details the following sentence might seem immodest; in connexion with the facts it is more than justifiable:—"We believe that we are not assuming too much in saying that we have by degrees attained sufficient practice and experience in the antiseptic treatment of wounds to be really able to promise a successful termination with certainty." Osteotomy itself amounts to something like an artificially produced compound fracture. Yet Professor Volkmann performed it

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thirteen times in 1874. Of these ten recovered without any suppuration at all, and the others with only the most trifling amount. His account of the pathology of various forms of anchylosis requiring osteotomy will be read with much interest by surgeons. We are concerned rather with his tribute to Professor Lister's antiseptic treatment. It should be remembered that he works in a hospital "old and always overcrowded, and offering the most unhealthy hygienic conditions." In addition to the results of antiseptic osteotomy, he records thirty-one compound fractures, including nineteen of the leg, without a single fatal result. No case of pyæmia has occurred in his practice for a year and a half, although in that time sixty major amputations have taken place. Such results as these deserve the widest publicity—for criticism, if they can be challenged in any way, for imitation if they cannot.

GOOD WORK DONE IN A BAD WAY.

THAT the Victoria Hospital in Chelsea and the Belgrave Hospital in Pimlico, which were established some eight years ago for the treatment of sick children, have been doing good work cannot be doubted by any who are acquainted with their operations. But from the first, though more clearly of late years, it has been apparent that the public usefulness of each of these charities was necessarily greatly crippled so long as they continued to strive separately, instead of unitedly, for their common good cause.

Impressed with the knowledge of this fact, the late Dr. Anstie, who was ever an active supporter of the Belgrave Hospital, to which he was attached as physician from its earliest days, constantly urged an amalgamation of the two hospitals. His arguments against a continued separation of these charities were so cogent, and, being his, will demand such respectful consideration from all who had the good fortune to know him, that we do not hesitate to quote the chief of them. He maintained that the existence of two charities established with the same object, within a short distance of one another, must generate a rivalry prejudicial to the success of both, divert from them public sympathy and support, increase their costliness by multiplying their expenses for management, and further diminish their efficiency and usefulness by limiting the field of medical practice at each, so that the medical officers could not be repaid for an outlay of valuable time and earnest labour.

It has been with particular interest, therefore, that we have watched, hoping to see what all should recognise as a most desirable amalgamation, but one cause of delay has followed another in the matter until to-day finds both these hospitals at work, cramped for room, appealing for funds, requiring new premises, but still ununited. We heard early in the present year, however, that proceedings were in progress for the purpose of effecting an amalgamation of these hospitals under the title of "The South Western Hospital for Children." We sincerely trust that these proceedings may speedily effect such a desirable object.

THE LATE SCARLET FEVER EPIDEMIC IN LONDON.

THE deaths referred to scarlet fever within the metropolis last week fell to 24, and are now below the corrected average number (in the corresponding week of the last ten years) for the first time since July last, when the recent epidemic may be said to have commenced in London. The epidemic may be said to have died out, so far as the metropolis is concerned, and it may not be without interest to compare its fatality with the last scarlet fever epidemic in London, which prevailed in 1869-70. During the 32 years 1840-71, the average weekly number of deaths referred to scarlet fever in London was 49; and as this number was constantly exceeded from the beginning of June, 1869, to the end of January, 1871, it may be said that the epidemic commenced and ended at those dates. During this period of about a year and three-quarters, scarlet fever killed in London 11,117 persons, principally children; deducting 4263 for what may be called the normal number at 49 per week during 87 weeks, it may be said that the epidemic caused 6854 deaths. Measured in the same way, the recent epidemic in London lasted only 26 weeks, from the beginning of July, 1874, to the end of January last, during which period the deaths from scarlet fever were 2201; reduced by the deduction of the normal number at 49 per week to 927 as the direct result of the epidemic. The earlier epidemic caused an average weekly excess of 79 deaths during 87 weeks; the more recent one a weekly excess of only 36 deaths during 26 weeks. The last epidemic was not only far shorter than the preceding one, but far less severe while it lasted. We may fairly ask, Is this a result of sanitary progress? The decline in the prevalence and fatality of typhus and typhoid fever in London is unmistakable evidence of improved sanitary condition, and the marked decline in the prevalence of small-pox rendered it possible to set aside the Metropolitan Asylums Board Small-pox Hospital at Homerton for the isolation and treatment of scarlet fever cases, in addition to the accommodation which could be spared in the two Asylums Board Fever Hospitals, in consequence of the decreasing prevalence of other forms of fever. The value of these four Asylums District Hospitals, with their 576 beds for in-patients, in the repression of epidemic disease within the metropolis, cannot be overestimated.

DRUNKENNESS AND CRIMES OF VIOLENCE.

THE grand jury at Leeds did a highly reasonable thing, as well as a great public service, when, in concluding their duties, they, through their foreman, Sir Henry Edwards, invited the judge's attention to the fact which they had observed, that in nearly all the cases of crimes of violence which had come before them, the exciting cause had been strong drink, and the criminals fresh from the public-house. The judge concurred, only adding that the sufferers had in many cases been associated in intoxication with the criminals. The fact noted by the grand jury is really too palpable and coarse to be questioned. The judge promised that it should be represented to the Home Secretary. We know that Mr. Cross has the kindly intention of making the publicans' business respectable by weeding out the disreputable members of the trade. We would respectfully suggest to Mr. Cross the damage to the respectability of the trade which comes from this connexion with brutality. The bakers' trade and the butchers' have no such damaging relations. Teetotalers would say that the connexion of public-houses and brutality is essential. It is not so. The fact is that there is an excess of public-houses. The maintenance of them all means, not the supply of a legitimate and beneficial amount of drink, but drunkenness. Let anyone look at the public-houses in London, especially where they are most of the nature of an eel, and he will see that they altogether exceed what can be wanted for the legitimate wants of the public. It is so, too, in the provincial towns. The consequence is, drink is sold to drunken people, who go reeling out to do violence, and to do discredit not only to society, but to the trade. We look to Mr. Cross to suggest remedies for this evil and this disgrace. A measure dealing severely with publicans who send out of their establishments drunken people, might weed out half the houses, but it would more than double the respectability of the trade.

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A PALMY PROSPECT FOR FIJI.

SINCE Britishers went far afield in pursuit of territory, either by conquest or annexation, there is little doubt that they have invariably imported into a new colony, among much useful material, many insanitary sins and habits that have from time immemorial existed in the old country in a greater or less degree. During the last decade, however, a great deal has been done, both here and in India, to purify persons, manners, customs, and dwellings, and it will be hard if, when His Excellency Sir A. Gordon takes formal possession of our newly acquired territory in the Pacific, he does not plant there some of these newly-acquired virtues. The governor has already on his staff two very able surgeons, who, if vested with proper power in all (as we should say at home) "urban, rural, and port" matters, ought to ensure, in a sanitary sense, a palmy prospect for Fiji. We are told that the climate is charming, that there are no wild beasts or creatures of any kind inimical to mankind, and that the earth gives forth abundantly all things necessary to life. Under these circumstances, and armed with powers analogous to those granted under our own Public Health, Merchant Shipping, Emigration, and Contagious Diseases Acts, it should surely be almost possible to keep out of the islands venereal and epidemic diseases. The area of territory is small, but scattered, and there are very few ports of call. A strict system of port sanitary surveillance, a modified system of quarantine, and the establishment of a floating hospital, are the chief working items needed to command success. Dr. Mayo and his colleague have a fine field open to them for the practice of those "preventive principles" about which we are just now disposed to be so proud.

EXCISION OF TONSILS.

A WRITER in the *Revue de Thérapeutique Medico-Chirurgicale* for March 15th, in a note upon amygdalotomy, suggested by a new guillotine, states that the operation is sometimes attended with fatal hæmorrhage, but that it is never necessary to remove the whole or even the greater part of a tonsil, the cicatrisation following on removal of the superficial parts alone sufficing to reduce its size; nor is it essential to operate on more than one of these organs. Strong preference is given to the employment of the guillotine over the bistoury, because of the inutility of removal of large portions, and the less liability to accidents. In support of the necessity of operating speedily in certain cases, a melancholy instance is given from the practice of the writer, in which the patient, a girl of sixteen years, suffering from angina with great enlargement of tonsils, literally died from asphyxia from excision being deferred, at the instance of a colleague, who thought hæmorrhage would be very severe, and that the case would speedily get well if left alone.

THE CHANNEL TUNNEL.

THIS tunnel, if it becomes an accomplished fact, will test very severely the abilities of our "ventilating" architects and engineers. Our contemporary, the *Engineer*, has elaborated some curious statistics on the subject, and arrives at the conclusion that, having regard to the number of trains sent through daily, it will be necessary, if ordinary locomotives are used, to renew the air in the tunnel entirely every hour, and, as the tunnel will be twenty miles long, and all the air must be withdrawn from one end or the other, a current of air must be passed through at the rate of twenty miles an hour. These results are, of course, arrived at on the supposition that the air would be rendered irrespirable by the coke smoke evolved, and the obvious alternative is to apply motive power by means other than those in use on ordinary railways. It has, too, yet to be decided by the engineering world whether the erection of a shaft or shafts in the Channel is practicable. In considering this important subject of ventilation in connexion with the Channel tunnel, we have no work in existence at all analogous to the proposed structure; for that through Mont Cenis is comparatively short, and admirably situated for purposes of ventilation, and the Metropolitan Railway is so riddled with openings, shafts, and holes in every direction, that even London smoke and dirt fail to make its atmosphere more than dense, or, in some parts, disagreeable.

UNHEALTHY CLIMATES.

A LARGE body of civilians serving under the Crown in various parts of the world will henceforth be specially interested in the official definition of an unhealthy climate. A new Superannuation Act (the terms of which, as a Bill, we referred to briefly some weeks ago) has just become law, which gives to the Commissioners of the Treasury power to declare by order a country or "place" unhealthy, in reference to the scale of retiring allowance to be awarded to civil servants under the Act of 1859. In computing any allowance under this statute, two years' service in a place officially designated as unhealthy shall be reckoned as service for three years, and so on in proportion for any greater or lesser period. We are curious to see the schedule of unhealthy places compiled by the Commissioners for the purposes of this Act. The factors that go to make a "place" unhealthy are many and various. Some are, so to speak, natural, found ready to hand, and never eradicated by any amount of civilisation; some have been introduced by colonisation, are firmly rooted, and grow with the population. Will "places" suffering from preventable unhealthiness be scheduled? for if so, many civilians serving at home as well as abroad will be benefited by the new Act. And what about certain "places" in various public buildings not one hundred miles from Charing-cross?

OBSTETRIC ENGAGEMENTS.

THE Judge of the County Court of Barrow has pronounced the idea of a medical practitioner holding himself in readiness to fulfil an obstetric engagement, and postponing a holiday on this ground, to be such nonsense as he never heard in his life! Dr. Williams had been engaged to attend a woman in her confinement. He stayed in Barrow some weeks longer than he would have done to fulfil his engagement. When the labour came it was so short that they did not send for him. But he claimed the fee in the County Court on the score of his engagement, which had hindered his freedom. Our readers know that this claim is constantly recognised by County Court judges. Here it has not only been disallowed, but the judge has thought it consistent with his position and his duty to make light of obstetric engagements, and throw ridicule upon a conscientious practitioner who respects them. We should suggest to His Honour to acquaint himself with the ordinary judgments of his fellow judges. He will not injure the profession so much as the public by treating thus lightly very serious contracts.

A VINDICATION OF MEDICAL STUDENTS.

OUR contemporary, the *Pall Mall Gazette*, alluding to the evidence adduced at a recent inquest on the body of an unfortunate police-constable at Birmingham, who lost his life in consequence of being stabbed in the neck by some dastardly ruffians during a street riot, praises the humane and persevering conduct of the students of the Queen's Hospital

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to whom was entrusted the arduous and delicate duty of compressing the common carotid artery in consequence of a wound of the internal carotid. The students took it in turn to perform this duty, which was continued altogether for fifty hours. Their efforts, and the subsequent operation of ligature, however, proved unavailing. We gladly hail the testimony of our contemporary to the fact that the ideas which many people have formed of medical students—derived from a study of "Pickwick"—are unjust and unfounded, and we would add that there is never any lack of men in our hospitals ready to volunteer to undertake similar work. When so much discredit is often thrown on medical students, it is only just that their good qualities should be recognised.

THE METROPOLITAN WATER-SUPPLY.

A BILL bearing the names of Colonel Beresford, Sir Chas. Russell, Mr. Forsyth, and Mr. Ritchie, proposes, by an order in Council, to hand over the undertakings of the eight companies now supplying London with water to a "Metropolitan Water Commission," for the purpose of making "more effectual provision for a constant supply of water, and for the protection of life and property against fire in the metropolis." Powers are sought by the Bill to combine, as far as possible, the sources of supply and the works of the several companies, and the disposal of all works, lands, and properties which may become superfluous in consequence of such combination; to put the works into the necessary condition for maintaining a constant supply at high pressure; and to provide and fix the necessary apparatus for cleansing and watering the streets, and for all other sanitary purposes. It is further proposed to endow the Commission with borrowing powers, and the Public Works Commissioners with power to lend money to the Commission, on the security of their income from water-rates. Under the Bill the present shareholders of the existing companies are to receive perpetual annuities in compensation for the transfer of their shares. In the present condition of general opinion on matters of public health, it appears improbable that the supply of water to the metropolis will be much longer allowed to remain a commercial speculation, but it remains to be seen whether the promoters of this Water Bill have any earnest intention to press on their measure.

A NEW FORM OF GLYCOSURIA.

M. JULES DAVID has recently observed, in a case of diabetes following a large carbuncle, a substance resembling glucose in its reactions, but differing from anything hitherto discovered. The urine reduced Fehling's solution, although less readily than ordinary diabetic urine. Liquor potassæ also caused a brown discolouration. But on examining it with the polarising saccharimeter not the slightest trace of deviation could be discovered. Moreover, on analysis, no glucose whatever was found by the usual method. A solution of the substance, after isolation, reduced Fehling's solution readily. Its exact nature has not yet been determined, owing to failure of the supply of the urine.

SMALL-POX IN JERSEY.

THE intelligent Registrar of Jersey, Mr. Henry Luce Manual, has supplied some tabulated statistics of small-pox to the Jersey papers of more than local interest. Though the disease still lingers, the mortality is much abated. In the five last months of 1874 the deaths from small-pox were 47; in the first two months of 1875, up to March 13th, the deaths from small-pox were 91; making a total of 138. This report includes the dead only, and takes no account of the maimed, the blind, and others, damaged and disabled by this disease.

THE NEW FACULTY OF MEDICINE OF GENEVA.

ON the 3rd ultimo the first stone of the Anatomical School of this new Faculty was laid with great pomp. Heretofore the University of Geneva had no faculty of medicine, and this addition is hailed with great enthusiasm by the scientific men of that city. The Government and learned societies were largely represented at the ceremony; speeches of importance were delivered, the discourse of the President of the Department of Public Instruction being peculiarly remarkable. He stated that the new Faculty, placed between Germany, France, and Italy, would serve as a scientific link between these countries. It may properly be added, that a faculty of medicine may well be erected in a land where physical and natural sciences have been so successfully cultivated by such men as Bonetus, Saussure, De Candolle, De la Rive, Pictetus, and others; and in a city where flourished Tronchin, Odier, Prévost, Maunoir, Coindet, Mayor, and Rilliet, all of whom have left a worthy name in the history of medicine and surgery.

NITROUS OXIDE AS AN ANÆSTHETIC.

AT the meeting of the Société de Chirurgie on March 3rd, a paper was communicated by M. Darin on the comparative value of different anæsthetics, especially of nitrous oxide. The author denied that this gas acted by producing asphyxia, as generally believed, stating that animals could live and grain germinate in an atmosphere of the gas; and believed it superior to ether or chloroform as an anæsthetic. He cited its wide employment in America as proof of this and of its safe administration, as showing that it could be administered during a long time. He quoted a case of ovariotomy by Dr. Marion Sims, in which the patient was left under its influence continuously for an hour and a half. A discussion followed, in which many members took part, and the following conclusions were arrived at:—1. That nitrous oxide does act by inducing asphyxia. 2. That ether has been too much neglected in Paris, and that it would be desirable to return to its employment. Other resolutions were adopted to the effect that, although the question was one which merited the attention of the Society, yet it was impracticable, from the constitution of the Society, to appoint a committee to investigate the question.

THE HAMPSTEAD HOSPITAL.

MR. MAURICE GRANT, in a letter to *The Times* of Wednesday, gives some particulars showing the relative isolation of the present site and those in Mill-lane. On an ordinary day he found that only 21 persons passed along Mill-lane between 8 A.M. and 7 P.M., including dwellers in the lane and persons in vehicles. On Easter Monday, 88 persons per hour passed through it. He adds that the lane is 1140 yards in length, and that there are only 39 houses or cottages within a radius of a quarter of a mile from the proposed sites, which are situated nearly at the centre of the lane. He states that on Easter Monday he counted 590 persons passing the east wall of the present hospital in the Fleet-road in ten minutes, and calculates the total number of visitors to the heath on that day as about 40,000. From our own observations on that day we should consider that this number was considerably below the mark. Mr. Grant adds that the petition to Parliament has already been signed by about 10,000 persons. The third alternative site in Mill-lane was to be viewed by the Asylum managers on Thursday. As the matter is to be brought before Parliament next week, we may await the issue of the application before making any further comments upon it.

HEALTH OF THE PRINCE OF WALES.

WE have much pleasure in stating on authority that the Prince of Wales is not seriously ill, as has been announced by several of our contemporaries. The rumour that has been circulated to the effect that His Royal Highness is suffering from sciatica is quite incorrect. The Prince has not entertained any intention of making a prolonged stay on the Continent; on the contrary, His Royal Highness is expected to return to town on Tuesday next, with a view of fulfilling an engagement to be present at the opening of the new buildings of the Merchant Taylors' school.

DEATH FROM CHLOROFORM.

A DEATH during the inhalation of chloroform occurred in the Adelaide Hospital, Australia, on January 25th. The patient was a healthy man, aged forty-five, who was about to have his little finger amputated. The chloroform was administered on a folded towel by one of the house-surgeons, who was thoroughly accustomed to the administration of the anæsthetic. The man struggled violently, and required to be forcibly restrained, when the face became livid, and he died, all efforts at resuscitation proving of no avail. This case resembles many other cases in the fact that the chloroform was administered for a trifling operation, and that death occurred in the struggling stage, when it may be supposed that the muscles were rigid, and that the danger of apnœa was superadded to that of chloroform narcosis. The anæsthetic was administered with all necessary caution and skill, and the jury returned a verdict in accordance with the facts, attaching no blame to anybody.

HEALTH OF IRELAND.

DURING the quarter ended 31st December last, there were registered 32,429 births, showing an annual birth-rate of 24·4 per 1000; and 22,705 deaths, affording an annual mortality of 17·1 per 1000. The death-rate was above the average, and was owing to the increasing fatality of scarlatina, and to the large mortality amongst old persons caused by the inclemency of the weather. Scarlatina caused 1427 deaths, fever 634, whooping-cough 376, diphtheria 173, and small-pox 148. As regards the latter disease, a large number of the fatal cases resulted from the pernicious practice of inoculation. The sanitary condition of the country is still extremely unsatisfactory, and the registrars of the various unions draw attention to the dirt, overcrowding, absence of ventilation, and of a proper supply of pure water in their districts.

THE JERSEY PRISON CASE.

MR. D. J. JENKINS will put a question to the Home Secretary as to this case on Tuesday next, which it is to be hoped will elicit information as to the treatment of prisoners in Jersey prisons, especially of prisoners of tender years and labouring under serious illness. It will be a great gratification to us to learn that Harriet Gilbert received from the authorities of the prison such attention and such diet as dying children may expect—even in gaol.

THE authorities at Epping have lately been circulating among the inhabitants a paper professing to set forth the average population, birth-rate, and death-rate of the Epping Union district. This paper, curiously enough, is signed by the inspector of nuisances. Is there no medical officer of health at Epping, or is it possible that since our commissioner visited the town in November last, it has become, hygienically speaking, so pure that the inspector has no work to do?

THE Society of Medical Officers of Health have issued a series of suggestions for preventing the spread of infectious or contagious diseases, such as scarlet fever, small-pox, fever, &c. The suggestions, curiously enough, are mainly adapted for the use of persons who have sufficiently capacious houses to admit of separation in them of the sick person from the rest of the family, and who have means to command all the requisites for prevention by isolation and detailed disinfection during the progress of the illness. Regarding the infectious sick among the class of persons who cannot command such houses, and who have not the means for detailed disinfection, no hints are given. This we look upon as an omission much to be regretted. The omission is the more noticeable as it concerns peculiar duties of the medical officers of health and the sanitary authorities. In a subsequent issue of the suggestions we shall hope to see included instructions relating to the provision which the sanitary authority is empowered to make for the isolation of the sick, and disinfection in those cases where isolation and disinfection cannot properly be secured in the infected house or apartments.

DR. J. W. TAYLOR, medical officer of health for Scarborough, has just published a report of the sanitary condition of the town during the year 1874. We find that there was a considerable reduction of the death-rate, as compared with previous years, a result due no doubt to the many improvements which have been carried out in the borough. The health of visitors and residents alike was good. The water-supply of Scarborough appears to be exceptionally good, as shown by analysis. It is obtained from a natural spring, which issues from the side of a cliff, and is pumped into a brick reservoir, calculated to hold three million gallons, from which it constantly flows by gravitation to every part of the town. Dr. Taylor gives some timely instructions to lodging-house keepers in so far as they are subject to a clause in the Public Health Act dealing with infectious disorders.

THE medical officer of health for Nottingham, Dr. E. Seaton, has issued a report of the condition of the town during the past year. The mortality in the period, although greater than in the preceding year, is much less than the average for the antecedent five years. The deaths from zymotic diseases were rather more numerous than could be wished, the fevers being credited with 95 deaths, 50 of these being due to scarlet fever. Infantile diarrhœa was prevalent in the latter part of the year, and was marked by a severity of type which caused 146 deaths. It could not be ascertained on investigation that this disease was associated with excremental pollution of air or water. Dr. Seaton urges the erection of small buildings for the reception of patients with infectious diseases.

AT the last meeting of the Royal Society of Edinburgh, on March 15th, the Makdougall Brisbane Prize, for the biennial period of 1872–74, was presented to Professor Lister for his paper on the Germ Theory of Putrefaction and other Fermentative Changes, presented to the Society in March, 1873. The prize consists of a gold medal and a sum of money, and is awarded for scientific merit in a paper during the biennial period, without any restriction as to the science treated of.

WE have received a draft of a Bill to Amend the Medical Acts so far as relates to the Royal College of Surgeons of England, prepared and brought into the House of Commons by Sir John Lubbock and Dr. Lush. For an account of the provisions of this Bill we refer our readers to THE LANCET for February 27th last, p. 318.

THE medical officer of health for the City of London, Dr. Sedgwick Saunders, to whose report, lately issued, we briefly alluded last week, lays stress on the importance of providing on every floor occupied by a family a separate means of removing waste water, the want of which leads to a repetition of its use in order to save the trouble of carrying it downstairs, and so limiting the consumption of perfectly fresh water. Dr. Saunders analysed the water from every cabstand in the City, and found a high standard of purity and an almost inappreciable variation in the constituents of the different samples examined. The report is forcible in its denunciation of existing evils, and will no doubt receive earnest consideration by the sanitary committee of the commissioners.

DR. W. OGLE, in his annual report to the combined sanitary authorities of East Herts, states that the death-rate of his district for the past year was only 15·4 per 1000 annually. There was a great diminution of mortality from the zymotic diseases. This reduction, however, is ascribed more to good fortune than to sanitary interference. Scarlet fever was very prevalent during the year, but the disease was of a mild type. Dr. Ogle has to complain of overcrowding and insufficient closet accommodation in most of the villages in East Herts.

A BOOK will shortly be issued in Paris by Dr. Burggraeve, a Professor in the University of Ghent, and chief surgeon to the hospital of that town, in commemoration of the first centenary of the immortal Jenner. The work is designated "Histoire Générale de la Vaccine; ou, Monument à Ed. Jenner à l'occasion du Prémier Centenaire de son Invention." It will be published by subscription, and under the patronage of the King of the Belgians, the Emperors of Russia and Austria, the Kings of Sweden, Holland, and Italy, and the Emperor of Brazil.

IN London last week 1680 deaths were registered, including 1 from small-pox, 17 from measles, 24 from scarlet fever, 14 from diphtheria, 59 from whooping-cough, 15 from different forms of fever, 22 from diarrhœa, and 508 referred to diseases of the respiratory organs. The Asylums District Small-pox and Fever Hospitals at Homerton and Stockwell (certified for 576 beds) contained on the 27th ult. 131 patients, 64 of whom suffered from scarlet fever, and 11 from small-pox.

A CONTEMPORARY says that seven cases of diphtheria have appeared amongst the soldiers' families now quartered at the Red Barracks since their removal from the huts on Woolwich Common, and five of them have been fatal. Those who have died are all children, three of them belonging to one family, and their mother, who is also one of the new cases, is now at the Herbert Hospital.

THE International Medical Congress for 1875 will be held at Brussels in September next, commencing on the 19th of that month. The meeting will last about a week. Full particulars of the Congress will be announced in due time in our columns.

IT is reported from Melbourne that Dr. C. Faber, surgeon on board Messrs. Green's ship *Carlisle Castle*, saved the life of a patient on the outward passage by transfusion of blood from a sheep. No particulars have as yet reached us.

RECENT advices from Ceylon report that cholera and measles are virulently epidemic at Colombo, Kandy, and Negombo, and that small-pox has been recently imported from Calcutta.

WE exceedingly regret to have to record the death of Mr. Thomas Paget, of Leicester. We hope to notice his life and work in detail next week.

DR. RICHARDSON, F.R.S., ON ACTION OF THE SEPTINOUS POISONS ON THE PRODUCTION OF FEVER.

IN a lecture delivered by Dr. Richardson before the Society of Medical Officers of Health, at their last meeting, a new theory was offered on the action of the poisons of the contagious diseases in the production of symptoms which mark those diseases, and especially the symptom of fever. In a lecture delivered before the same Society, in the year 1865, the author detailed his original experiments on the poisonous action of an organic substance he had obtained from the sero-sanguineous fluid that had been removed by Mr. Spencer Wells from the peritoneal cavity of a woman suffering from pyæmia after the operation of ovariotomy. To this organic poisonous substance he (Dr. Richardson) at that time gave the name of septine, and he showed not only that it would communicate fatal disease to an inferior animal, but that the same disease could be communicated from the secretions of the primarily infected animal to other healthy animals in direct series. He also showed in the same research that the organic poison could be made to combine with acids so as to form salts which retained the poisonous qualities of the original substance. That a similar poisonous substance is present in decomposing blood, and that the poison can be transmitted in a series of animals, have since been confirmed by the independent researches of many physiologists, and the fact may be considered as fully established, although great difference of opinion still remains as to the nature of the organic product, some assigning to it purely physical, others vital properties.

We may be able by and by to discuss these different views at length. At present we are intent only to indicate the new theory which the author, whose communication we now notice, offers as to the mode in which the organic poisons produce their peculiar effects. On this important inquiry he has been occupied ever since his researches in 1865, and the result is to the effect, that the poisons exert their deleterious action through the property they possess of setting at liberty the oxygen of the blood in undue quantities in the extreme circulation. By way of experimental demonstration, Dr. Richardson took specimens of solutions of peroxide of hydrogen, and inoculated them with points of different organic poisonous animal substances —viz., decomposing blood, pyæmic poison, pus, fibrine, and vaccine lymph. In the presence of all these bodies, oxygen began to be immediately liberated from the solution. Other organic substances—mucus, for instance—would not liberate oxygen, a fact which could be applied (as was shown by an experiment) for diagnosing mucus from purulent matter. Proceeding with his demonstration, Dr. Richardson charged blood with oxygen from the peroxide solution; then, by inoculating this blood and setting oxygen at liberty, he showed the temperature of the blood rose 4° Fahr. In his further observations, he explained that these organic disturbing substances are themselves decomposed in the process of the change they excite, and that they all seem to be derived originally either from fibrine or cellular tissue.

The conclusion arrived at, and which was advanced admittedly as a theory in its present state, is that the fever-producing poisons act in the way described by setting oxygen free in the blood in undue proportion. The theory, it was urged, explains the phenomenon of remittency. The accession of fever is due to the presence of the poison, but as the poison becomes destroyed the disturbance ceases until a new charge is locally produced and carried into the blood. The theory also explains the phenomena of those malignant contagious diseases in which death occurs very rapidly, with symptoms of asphyxia and convulsion. Here, it is assumed, the liberation of oxygen is sudden and complete, and the blood so surcharged with poisonous matter that it cannot duly absorb and fix oxygen in the pulmonary circuit. Thus an asphyxia commences from the blood itself.

Some therapeutical considerations brought the lecture to

a close. It was shown that certain medicinal substances, among which quinine was specially named, counteract the different poisons in their power of liberating oxygen.

Our readers will gather from this summary that a new field of inquiry on the subject of the poisons of the contagious diseases is opened by these researches. That the inferences drawn support the physical side of the question may naturally be expected, coming as they do from an author who for so many years has been one of the most prominent exponents of the physical theory of contagion.

TESTIMONIAL TO THE LATE SIR RANALD MARTIN, C.B.

A MEETING was held on the 25th March, at Willis's Rooms, for the purpose of considering the subject of a memorial to the late Sir Ranald Martin, in recognition of his services rendered in the advancement of the science of tropical medicine, and in promoting sanitary reforms both in India and in this country. Sir Galbraith Logan presided, and moved the first resolution. The late Director-General of the Army Medical Service dwelt forcibly on the value of the public labours of the late distinguished officer, and on the high character he bore both privately and professionally. Sir George Burrows, in seconding the motion, expressed his satisfaction, as a friend and admirer of the late Sir Ranald, that the subject of a memorial had been so warmly taken up, declaring that the late officer was honoured by all who knew him, and that all connected with the institution over which he presided sympathised most cordially with the movement. Sir William Muir moved, "That the most fitting memorial of the services of one so long associated with the advancement of military medicine would be the foundation of a prize to be competed for in the Army Medical School by the candidates for commissions in the medical services of the British and Indian armies and the Royal Navy." Sir William Fergusson, Professor Parkes, and many other distinguished members of the profession were present, and took part in the proceedings; and amongst the letters from those unable to attend, but sympathising with the object of the meeting, was one from Lord Derby.

The following are the executive committee appointed for carrying out the object of the meeting:—Sir Galbraith Logan, K.C.B., Sir William Fergusson, Bart., Sir George Burrows, Bart., Sir William Muir, K.C.B., Sir Alexander Armstrong, K.C.B., Surgeon-General W. C. Maclean, C.B., F.R.S., E. A. Parkes, M.D., F.R.S., J. Fayrer, M.D., C.S.I., and G. D. Pollock, Esq., F.R.C.S., treasurers; P. O'Brien, Esq., F.R.C.S., hon. sec. The aid of the public and administrative medical officers is solicited in furtherance of the objects of the meeting.

BIRMINGHAM.

(From our own Correspondent.)

"HOSPITAL SATURDAY" has this year realised the large sum of £3628, and there are still contributions to come in from many of the manufactories of Birmingham and the vicinity.

The Corporation have determined, in the face of much opposition, to increase the "improvement rate" to enable them to carry out many necessary sanitary and general alterations which will tend to the future benefit of the inhabitants. One of their proposed reforms, which will cost upwards of £5000, is to enclose, cover in, and otherwise amend the wharves in Shadwell-street, at the back of the General Hospital, from which the night-soil is taken in barges to the country, so as to prevent the operation being so offensive to the officers and inmates of that institution as it is at the present time.

Lord Leigh presided at the annual meeting of the Queen's Hospital to-day, and, although the report showed that the number of in- and out-patients was very large, and that the work of the institution was efficiently performed, the financial statement was anything but satisfactory. 1818 in-patients and 15,529 out-patients, with special obstetric, ophthalmic, and dental departments, must of necessity cost a great deal of money, and it is to be regretted that the Committee have again to appeal to the public for more help. Although £8000 was raised by a special effort last year, the institution is at the present moment in debt to the extent of nearly £6000. New and increased subscriptions and donations must be forthcoming, or the Committee will scarcely be justified in maintaining the present number of beds, or in relieving, except under different conditions, so large a number of out-patients.

The medical officer of the West Bromwich Union has received a vote of censure and notice to resign from the guardians, in consequence of his not having visited a pauper three miles from his surgery, who was suffering from asthma. Mr. Sainsbury's answer to the charge was that he had sent his assistant, as he himself had been suffering from the effects of a railway accident, and that, by the patient not sending for medicine as he was requested to do, it was thought unnecessary to visit him again. Of no avail, however, was any excuse, and a sort of "Jedburgh justice" was at once dealt out to Mr. Sainsbury, although he had been for some years surgeon to the parish, and was known by many of the guardians and by his professional brethren to be a humane and conscientious officer.

Dr. Sawyer has recently been paying special attention to the effects of jaborandi, and has noted the remarkable influence of the drug upon vision. The new Hospital for Women has already outgrown its present building, and a new out-patient department is to be built for the accommodation of the out-patients, who now number nearly 100 daily. Dr. Louisa Atkins, M.D. of Zurich, has been appointed non-resident house-surgeon, and Miss Harding dispenser of medicines.

Birmingham, March 22nd, 1875.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 25th:—

Day, Edward Joseph, Woodgates, Dorset.
Karop, George Charles, Middlesex Hospital.
Prichard, Arthur William, Clifton, Bristol.
Seward, William Joseph, Hereford.
Wilkins, Gilbert Hamilton, Brixton-road.

The following gentlemen passed the Primary Professional Examination on the same day:—

William Thomas Angove, St. Bartholomew's Hospital; Louis Francis Hugh Birt and Joseph George Blackman, Charing-cross Hospital; Alfred Bostock Hill, Birmingham Hosp.; Walter Maine and Ebenezer Edmund Price, Middlesex Hospital.

DR. GOSCHEN, who for many years was editor of the *Deutsche Klinik*, of Berlin, has just died in that city.

VACCINATION GRANTS.—W. M. Whitmarsh, M.D., M.R.C.P., Hounslow, has been awarded a second Government grant of £18, and Mr. George O'Kell, of Winsford, £16 11*s.*, for efficient vaccination in their districts.

SOCIAL SCIENCE CONGRESS.—The Council of the Social Science Association has fixed October 6th to the 13th as the period for holding the Congress at Brighton this year. It has also authorised an exhibition of sanitary and educational appliances and apparatus to be held at the same time in connexion with it.

A ROYAL COMMISSION has been issued to inquire into the working of the Factory and Workshops Acts with a view to their consolidation and amendment. The inquiry is to extend to the consideration of the propriety of including in the Acts trades and occupations other than those at present the subjects of legislation.

BEQUESTS &C. TO MEDICAL CHARITIES. — Mr. Green Simpson bequeathed £200 each to the County Lunatic Asylum, the County Hospital, and the Dispensary, all at York. The Hospital for Sick Children, Great Ormond-street, has received £100 from the Goldsmiths' Company, towards the Building Fund for the new hospital, and £100 from "M. W." The Royal Infirmary for Children and Women, Waterloo-road, has received £100 from Messrs. Barclay, Perkins, and Co., in aid of the Enlargement Fund.

NORTH LONDON OR UNIVERSITY COLLEGE HOSPITAL.—The annual court of the governors and subscribers of this institution was held last week. The report showed that during the past year relief had been afforded to 2071 in-patients, 4520 out-patients, 4599 casualties, 1194 ophthalmic cases, 1280 cases of diseases of the skin, and 1080 women in childbirth attended at their own homes, making the total number of persons under treatment during the year 14,494. The annual dinner held under the presidency of Lord Houghton realised £1010. The total income for the year had been £16,501 8s. 7d., of which £13,350 18s. 9d. had been expended on the hospital, and £2550 had been invested, leaving a balance of £399 9s. 10d. The report concluded by expressing the opinion of the committee that to maintain the hospital in its present state of efficiency, with an increasing number of patients, an increase in the expenditure must be expected.

ROYAL ALBERT ASYLUM, LANCASTER.—A banquet, promoted by the local committee in the Manchester district of the Royal Albert Asylum for Idiots at Lancaster, was held in the Assize Courts Hall, Manchester, on Tuesday evening, in aid of the funds of the asylum. Lord Winmarleigh presided. The chairman, in proposing the toast of the evening, said that if the asylum were adequately supported, he thought the time was not far distant when it would be an institution of which any district, or any nation, or any age might well be proud. The Bishop of Manchester, in some remarks, said, if the asylum were full, it could accommodate 600 idiot patients. At the present moment only about one-third of the capacity of the asylum was used, and he therefore strongly supported the appeal which had been made in its behalf. He was ashamed to find that Manchester, which sent to the asylum one-third of its inmates, only sent in as contributions to its funds the paltry sum of £60 a year.

Medical Appointments.

BERNARD, A., M.B., L.R.C.S.Ed., L.M., has been appointed Medical Officer for Nos. 7 and 8 Districts of the Parish of Liverpool.

BOLTON, J. A., L.R.C.S.I., L.M., has been appointed Medical Officer and Public Vaccinator for the Coniston District of the Ulverston Union, vice Gallwey, resigned.

BRAILEY, W. E., M.A., M.D., Curator &c. to the London Ophthalmic Hospital, Fellow of Downing College, Cambridge, has been appointed Lecturer on Comparative Anatomy at St. George's Hospital Medical School.

BRAMHALL, S., L.R.C.P.Ed., has been appointed Medical Officer to the Oystermouth Castle Lodge of Odd Fellows, Manchester Unity, the Mumbles, near Swansea, vice Eade, whose appointment has expired.

CARTER, C. H., M.D., M.R.C.P.L., has been appointed a Physician to the Hospital for Women, Soho-square.

COLLINS, W. C. G., M.B., C.M., M.R.C.S.E., has been appointed Assistant House-Surgeon to the Swansea Hospital.

COVERDYON, C. J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Beguildy and Llanbister Sub-district of the Knighton Rural Sanitary District: £35 per annum; acreage 56,363; population 5793.

CREAGH, Mr., has been appointed Medical Officer to the Fermoy Railway, vice Justice, deceased.

CUMMING, H. G., F.R.C.S.E., L.R.C.P.Ed., has been appointed House-Surgeon and Apothecary to the Devon and Exeter Hospital, vice Domville, resigned.

DOUGLAS, Dr., of Mullen, has been appointed an Assistant Medical Officer to the Blaenavon Iron and Steel Co., vice Drury, appointed a Resident Surgeon to the General Dispensary, Birmingham.

GAY, H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the East District of the Spilsby Union, vice Thimbleby, resigned.

HEARN, R. T., M.B., has been appointed House-Surgeon to the Dorset County Hospital, Dorchester, vice Smith, resigned.

HENWOOD, J. D., L.S.A.L., has been appointed Resident Medical Officer to the Charing-cross Hospital, vice Crocker, resigned.

HOLLAND, E., M.D., F.R.C.S.E., has been appointed an Assistant-Physician to the Hospital for Women, Soho-square.

LEDIARD, H. A., M.B., M.R.C.S.E., has been appointed Medical Officer to the Central London Sick Asylum District now Asylum in Cleveland-street.

ODLUM, Dr., has been appointed Assistant Medical Officer to the Durham County Lunatic Asylum, Sedgefield, vice Bishop, whose appointment has expired.

PARKES, A., M.R.C.S.E., has been appointed House-Surgeon to the West Bromwich District Hospital, vice J. Johnston, M.B., appointed Resident Medical Officer to the Birmingham and Midland Free Hospital for Sick Children.

PARKHOUSE, H., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Kilburn Dispensary, vice Cass, resigned.

PENRICE, D. S., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2 District of the Henstead Union, Norfolk, vice Findlay, resigned.

POLLEN, Dr. H., has been appointed an Assistant Medical Officer to the Blaenavon Iron and Steel Co., vice Williams, appointed Medical Officer for No. 2 District of the Leominster Union.

REID, W., M.B., C.M., has been appointed Resident Medical Officer and Secretary to the West Norfolk and Lynn Hospital, vice Priestley, resigned.

SINCLAIR, J., M.D., M.R.C.S.E., has been appointed Medical Officer for No. 10 District of the Parish of Liverpool, vice Garthside, superannuated.

SMITH, R. T., M.D., has been appointed an Assistant-Physician to the Hospital for Women, Soho-square.

SMYTH, H., M.B., C.M., has been appointed Medical Officer to the Good Samaritan, Philanthropic, and Alliance Lodges of Odd Fellows, Poole, vice Crabb, deceased.

THOMAS, J., L.R.C.P.Ed., M.R.C.S.E., has been appointed a Surgeon to the Swansea Hospital, vice Davies, resigned.

THOMAS, J. W., F.C.S., has been appointed Public Analyst for Cardiff.

THOMPSON, E. C., M.B., L.R.C.S.I., L.M., has been appointed Surgeon to the County Tyrone Infirmary, Omagh, vice Henry Thompson, M.D., F.R.C.S.I., resigned.

THORNLEY, J. G., M.D., L.R.C.S.Ed., L.M., has been appointed Physician's Assistant at the General Hospital, Bristol, vice Stevens, resigned.

TONGE-SMITH, WINCKWORTH, M.R.C.S.E., has been appointed House-Surgeon to the Clinical Hospital and Dispensary for Children, Manchester, vice Sinclair, resigned.

TOOZE, A. S., M.R.C.S.E., has been appointed House-Surgeon to the Seamen's Hospital, Greenwich, vice Glanvile, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CRONIN.—On the 17th ult., at the Old Manor House, Clapham, the wife of Eugene F. Cronin, M.D., of a son.

DALY.—On the 30th ult., at Queen's-road, Dalston, the wife of Frederick H. Daly, M.D., of a daughter.

HARRIS.—On the 27th ult., at Myrtle Cottage, Pear-tree-green, near Southampton, the wife of W. Poulett Harris, M.D., Surgeon-Major H.M.'s Indian Army, of a son.

HENDRY.—On the 21st ult., at Westminster-road, Liverpool, N., the wife of James A. Hendry, M.R.C.S.E., of a son.

LONG.—On the 31st ult., at Amhurst-road, Hackney, the wife of Mark Long, M.D., of a daughter.

ORTON.—On the 28th ult., at Crouch-end, Hornsey, N., the wife of T. Orton, M.D., of a son.

MARRIAGES.

CLARKE—ATKINSON.—On the 30th ult., at the Congregational Chapel, Lancaster, T. E. Clarke, M.R.C.S., L.S.A., of Dalton-in-Furness, to Maggie, eldest daughter of Mr. William Atkinson, of Kirkby-Lonsdale.

HOPKINS—KIRKMAN.—On the 31st ult., at St. Peter's, Catherington, Henry Cullifford Hopkins, Surgeon, of Bath, to Georgina Mary, youngest daughter of J. T. Kirkman, F.R.C.S., of Horndean, Hants.

LITHGOW—MURRAY.—On the 10th ult., at St. Jude's, South Kensington, Robert Alexander Douglas Lithgow, L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.L., of Wisbeach, Cambridgeshire, to Emily Mary, only daughter of Sir Robert Murray, Bart., of Hill-head, N.B., and of the late Lady Murray, of Ardeleybury, Herts.

LONGHURST—SIMMONS.—On the 16th ult., at St. George's, Bloomsbury, Alexander Keene Longhurst, M.R.C.S.E., to Ellen, daughter of Thomas Simmons, Esq.

RAVENHILL—BROOKFIELD.—On the 30th ult., at St. George's Church, Oxford, Edmund Burton Ravenhill, M.R.C.S., L.S.A., of Wolverhampton (second son of the Rev. T. H. Ravenhill), to Ellen Mary, daughter of John Brookfield, Esq., High Bailiff of County Courts, of Midhurst, Sussex.

RIGDEN—FENTON.—On the 31st ult., at the Parish Church of St. George, Doncaster, Walter Rigden, Surgeon, of Montpelier-square, London (son of George Rigden, Surgeon, of Canterbury), to Cecilia Frances, third daughter of C. D. Fenton, M.D., of Doncaster.

DEATHS.

BEST.—On the 25th ult., at Byères, France, Alexander Vans Best, M.D., F.R.C.S.E., of Aberdeen.

CARDELL.—On the 14th ult., J. M. Cardell, F.R.C.S.E., of St. Columb, Cornwall, formerly of Salisbury, aged 43.

CUMMING.—On the 23rd ult., James Cameron Cumming, M.D., of Exmouth, aged 72.

DAVIDSON.—On the 22nd ult., Samuel Davidson, M.D., of King-street, Aberdeen, aged 33.

EASTWOOD.—On Easter-day, Gertrude Edith, daughter of J. W. Eastwood, M.D., M.R.C.P.L., of Dinsdale-park, Darlington, aged 3 years.

EDMOND.—On the 22nd ult., James Williamson Edmond, M.B., C.M., of Inveresk.

PALMER.—On the 24th ult., Silas Palmer, M.D., of Newbury.

STEWART.—On the 26th ult., at Tunbridge Wells, Duncan Stewart, M.D. late Surgeon-Major H.E.I.Co.'s Service, aged 70.

YOUNG.—On the 23rd ult., James Young, M.D., of Kirkcaldy.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

The Soul: Is it Immortal?
Obstetrical Transactions. Vol. XVI.
Dr. Chambers: A Manual of Diet in Health and Disease.
Mr. Pollock: Out of the Body.
Prof. Kiss: New Manual of Physiology.
M. Homolle: Des Scrofulides Graves.
Dr. Laton: Traité des Injections sous-cutanées.
M. Valette: Clinique Chirurgicale.
Rev. F. G. Lee: Glimpses of the Supernatural. Vols. I. & II.

Notes, Short Comments, and Answers to Correspondents.

CHARITY DINNERS.

How well we remember when, as one of the house-surgeons of a well-known institution, we attended for the first time (with a free ticket) the annual dinner in aid of the charity. The entire ceremony was a novelty, and the big room, the flaring lights, the innumerable candelabra and épergnes, the toastmaster's stentorian voice and white waistcoat, the glees, the speeches, and the long list of donations read out by the treasurer, all made their due impression, and we thought not a little of the importance of an institution which could command so much and such stately sympathy. Made thirsty by partaking of all the twenty-four dishes on the gilt *menu*, we refreshed ourselves from every bottle that came within reach, cheered the speakers to the echo, applauded every donor of a guinea, and in the morning could scarcely remember the cause of our splitting headache. We have been to the dinner every year since, and as the time comes round we generally decide, after a struggle, to go once more and brave its tedious horrors yet again. Our reflections are so different now from what they were as a house-surgeon that we are in doubt whether our ecstacy then was all due to the inexperience of youth, or whether the style of dinner has really deteriorated. The novelty of the room, the long tables, and the flaring gas-lights of course wears off. The candelabra and gilt épergnes have not changed. We know every vine-leaf of the designs, and have begun to see how much some of them want re-plating and soap and water. We are degenerate enough, too, to consider that shrivelled apples and a ha'porth of oranges form but a poor dessert for a guinea dinner (electro-plate, ormolu, and paper flowers notwithstanding). Then, again, how cold everything is (quite appropriately "as cold as charity"). Surely the kitchen must be three streets off, and the draught round your head when the door behind you is opened is enough to blow you off your seat. Bitter experience has taught us to beware of the wine; for we know that the sherry is (unlike the food) hot, the champagne sweet, the claret sour, the 'ock (as the waiter calls it) thin, and the port thick and astringent. We drink Seltzer water, and, to our astonishment, we see the Chairman and the guests near him doing the same thing, and even going so far as to neglect the toastmaster's invitation to fill "bumpers," and being guilty of the heinous disloyalty of toasting Her Majesty with empty glasses. Then the glees; what an intolerable nuisance they are, and how they serve to lengthen the whole ceremony, which should by right be short and crisp. How few of the speeches are worth listening to, and how the old platitudes pall upon the ear. The domestic virtues of certain people, the gloriousness of charity in general, and of this one in particular—the nobleness, urbanity, and superb intellect of the Chairman, the disinterestedness of the honorary staff and the nursing sisters, the Christian meekness of the chaplain, and the beauty of women are the topics which occupy the speakers, while the guests talk, yawn, even sleep, and do everything but listen. After all this, no wonder the subscription list is meagre, and it is noteworthy that those who give most are not present; and perhaps if the Committee had not decoyed the supporters of the charity to this dismal and dyspeptic entertainment the springs of benevolence would have flowed more freely. Surely the charity dinner is "played out," and some device a little less terrible may, we hope, be planned for compelling Dives to think of Lazarus.

THE letter of *Mr. Curwen Holthouse* shall be published in our next impression.

SIR RANALD MARTIN.

To the Editor of THE LANCET.

SIR,—Some intimation of the opinion of the late Sir Ranald Martin on the litigated organisation of the Army Medical Department might have been acceptable at the important meeting on Thursday last, held at Willis's Rooms.

Whether the Regimental Medical or the United Departmental shall be decided on as the best for the medical service of the British army, time, and the test, which we are told is being pursued, may be expected to settle definitely, and it is to be hoped, for the sake of the public service, before long.

While so much was feelingly said at the meeting of the noble and comprehensive character of the man we have lost, allusion to the subject of the organisation may have been withheld through the good judgment of those who had to address the assembly, but I think I am not wrong in stating that Sir Ranald would have had the Department a homogeneous staff, unfettered by the action of other departments, and invested with its own responsibility, and given the full scope to meet it under the supreme military command. He would have had it placed as a scientific body, and he had his designation for it—"The Royal Corps of Surgeons."

Yours, &c.,

ONE WHO WAS PRESENT AT THE LATE MEETING AT WILLIS'S.

March 30th, 1875.

SMALL-POX IN KINGSTON UNION.

THE outbreak of small-pox in Kingston Union resulted in two more deaths last week in the Workhouse Infirmary. The first two fatal cases were recorded in the Hampton registration sub-district in the previous week—one was of an unvaccinated male adult in the Pits, Hampton Wick; and the other of a child, aged eight years, at a part of the parish of Teddington called Newfoundout, who was said to have been vaccinated in infancy.

Dr. G. D. Liveing is thanked for his courtesy.

THE WATER QUESTION AT COWES.

THE vexed question as to the source of the proposed new water-supply for Cowes seems as far from being settled as ever. A recent meeting of the Local Board was held to confer with Major Tulloch, the Government inspector, upon the subject. At this meeting, which lasted two hours, very conflicting opinions were expressed as to the merits of the schemes of the rival engineers, and as to the probability of obtaining a sufficient supply from the proposed watersheds. The inspector is reported to have put some very puzzling questions to the Local Board, the answers to which not being entirely satisfactory, he advised, in conclusion, that the opinion of some eminent geologist on the points in dispute should be obtained before proceeding further in the matter; when fortified by this opinion, the Local Board were informed that they might proceed to adopt such measures as might appear to them most expedient. It seems probable that, in spite of assistance from rival engineers, Government inspector, and eminent geologist, the people of Cowes will yet have to wait some time before they will be able to drink of the proposed new water-supply.

THE BIRMINGHAM MEDICAL INSTITUTE AND HOMŒOPATHY.

To the Editor of THE LANCET.

SIR,—In your impression of last week you say, "The whole dispute turns upon the assumption of the homœopaths of a name that is 'calculated to mark them from the general body of practitioners.'"

We do not assume the name objected to; it has been bestowed upon us, and most inappropriately, for it only refers to a portion of our practice.

The sole difference between you and us is that we are medical men who hold ourselves free to avail ourselves of all the resources of therapeutics, *including* homœopathy; while you profess yourselves free to avail yourselves of all the resources of therapeutics, *except* homœopathy. We both desire to do the best for our patients; but you hamper yourselves by an obligation to refrain from giving them the advantage of homœopathic treatment when applicable, whereas we do not so hamper ourselves.

The quotation you make from a recent lecture of mine with respect to certain cases of disease not admitting of homœopathic treatment is no novelty, as you seem to think, for you will find a similar admission in Hahnemann's Organon.

Having always felt that the names "homœopath" and "allopath" were nicknames, we shall only be too happy to abandon them.

If we have our periodicals, societies, dispensaries, and hospitals with the distinctive appellation homœopathic, we have been compelled to do this in consequence of your treatment of us. We have not been allowed to write in the medical journals; we have been excluded and expelled from the societies; we have been refused admission to or compelled to resign our appointments to the dispensaries and hospitals, which do not admit homœopathy to be a true principle in therapeutics.

Cease to call us homœopaths; acknowledge our right to practise medicine according to our judgment; do not say that we are necessarily cheats and impostors because we differ from you in the mode of administering medicines in most cases; allow us the right of reply in your periodicals, and accept our contributions when they are worthy of acceptance; do away with the rules of your societies that exclude duly qualified medical men on account of their mode of practice; throw open your hospitals and dispensaries to the competition of all without distinction of medical creed;—and you will see a rapid extinction of homœopathic journals, dispensaries, hospitals, societies, and directories.

Your obedient servant,

Montagu-square, March 23rd, 1875. R. E. DUDGEON.

*** It is not a little curious that the death-blow of homœopathy should be dealt by one of its reputed heads in the country. We congratulate Dr. Dudgeon, the English translator of Hahnemann's Organon, on the courage he has displayed, especially at this juncture, of publicly renouncing the name of homœopath, and in acknowledging that he avails himself of all the resources of therapeutics, *including* homœopathy. There is no objection to the administration of a drug if experience has shown that its action in a given case is beneficial, although that action may at first appear to be explicable only on a homœopathic hypothesis. Facts are stubborn things, to which crude theories must conform; but the acknowledgment of a fact does not necessitate the acceptance of a theory primarily based upon it. What we have all along complained of is, that there is a class of medical practitioners who do assume a name that is calculated to mark them from the body of the profession. Let these practitioners erase the name of homœopath from their writings, their hospitals, and their societies; let them undeceive the public by openly declaring, as Dr. Dudgeon has done, that they *do not* exclusively practise homœopathy, and that they do not even believe in the general applicability of the system, then we also shall cease to make use of the opprobrious epithet.—ED. L.

To the Editor of THE LANCET.

SIR,—Permit me to correct an error into which your correspondent, F.R.C.S., has fallen when quoting two sentences from a paper I read at the Congress of Homœopathic Practitioners last year. Had he read that paper more carefully, he would have seen that my contention was totally different from what he represents it. The following sentence, which I beg to transcribe, will indicate in a few words, not indeed that I was even dreaming of abandoning the therapeutic law which guides homœopathists to the selection of remedies, but that "my object in this paper is to press upon you the necessity of keeping pace with the scientific discoveries of the present day, and by moulding them to our therapeutics, raise the latter from an empirical formula to the higher standard of a scientific principle. Having the enormous advantage of a law of cure to start with, we can the better hold our vantage ground by utilising every discovery which throws light upon our special subjects of study." Your correspondent's letter is only a too common example of quoting without regard to the context, and with an entire misinterpretation of the author's argument. Trusting to your fairness to favour me by inserting this correction,

I am, Sir, yours very obediently,

Harley-street. ROBT. DOUGLAS HALE, M.D.

GENERAL SPINAL PARALYSIS: AUTOPSY.

A CASE of this kind, with a post-mortem examination made by skilful hands, is valuable, and we therefore at once transcribe it. M. Cornil, the eminent Paris pathologist, communicated it to the Biological Society of Paris conjointly with M. Lépine. The patient was twenty-seven years old. He suffered from paraplegia of the lower extremities in infancy, but recovered perfectly in a comparatively short time. In 1871, in consequence of a cold, he felt some weakness in the left leg; the right limb suffered soon in the same way, and the weakness gradually involved the whole sacro-lumbar mass. In 1873 the paralysis reached the trunk, and later the superior extremities, with very marked atrophy. The latter was quite regular, and did not occupy, as happens in progressive muscular atrophy, distinct groups of muscles. No pain, no actual contractions, but simply retraction of muscular fibrillæ. After a short time bulbar paralysis, affecting the soft palate, made its appearance. Salivary secretion was now very scanty, deglutition and respiration became difficult, and the patient died asphyxiated.—Post-mortem examination: Granulo-fatty degeneration of muscular fibres in places. With the naked eye softening of the cord above the lumbar enlargement could be observed; the softening reached a little higher up, becoming gradually less marked, but the dorsal and cervical portions did not seem to have undergone softening. The anterior roots were clearly atrophied, and the medullary substance quite wanting in different points. After the cord had been artificially hardened, it was noticed that the lesions were about the same as are found in progressive muscular atrophy and infantile paralysis, but more distinctly marked. The canal of the ependyme was found in a healthy condition; but in the anterior cornua the large motor cells had completely disappeared. Behind, however, a grey mass was found with preservation of the cells. In the dorsal region the latter were atrophied in the foremost half of the anterior cornua; the cells had lost their prolongations, and contained granulations. These prolongations were, however, found in Clarke's columns. On a level with the anterior cornua, especially on the right side, a deformity and flattening of the cornua were observed. In the interior of the cornua cavities were found, in the centre of which was a bloodvessel containing red globules. This cavity was noticed to be the lymphatic sheath, and it is probable that there were also granular corpuscles in these sheaths. They had been observed before hardening of the parts, but the process of induration caused the granular bodies to disappear.

B. W.—The rule varies in different places. Our correspondent should be guided by the custom of the place he is in.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—Dr. George Johnson now states that my being called in arose through a "mistake" of Dr. Falls. This explanation seems very like an after-thought. It is inconsistent with the statement made to me by the manly and stalwart son (whom Dr. Johnson describes as the patient's "youthful son"), who said that Dr. Johnson objected to my attendance on the ground that what he wanted was a general practitioner, and not a physician, and it is likewise inconsistent with the interrogatory put to me by Dr. Johnson himself, and which was the only remark that fell from him of the nature of an explanation, "Was I not a consulting physician?" Even if my being called in were a "mistake," as Dr. Johnson alleges, it by no means justified the behaviour exhibited by him towards me in this matter.

But now let us see how far Dr. Johnson's new plea of a "mistake" on the part of Dr. Falls really tallies with the facts. Before the gentleman in question came to Ventnor, his son and daughter called upon me to ask my opinion as to the suitability of a house he thought of taking at Bonchurch. Subsequently I received a letter from Dr. Falls, in which he requested me to take charge of the patient, furnishing me with the full history of the case; and all this was done by Dr. Falls with the knowledge and consent of the patient, who subsequently came under my care in due course, and on whom I was in actual attendance at the time when, at the instance of Dr. Johnson only, I was so summarily set aside by him; and this without a word of explanation beyond the fact that he required, not a physician, but a general practitioner, and without the smallest apology or the slightest expression of regret.

Such, then, are the facts connected with the "mistake" of Dr. Falls. I think it may be said that the mistake was rather with Dr. Johnson himself; that if he had any desire Dr. Whitehead should attend the gentleman in question, he did not make it known at the proper time either to the patient or to Dr. Falls, and that, having made that mistake, he was bound to accept accomplished facts, to recognise my attendance, and to treat me with the courtesy and professional etiquette due between two members of the same profession. His not having done so has led to this protest on my part, and I venture to think that if others in similar cases would fearlessly follow my example, fewer instances would occur of conduct similar to that of Dr. Johnson. Dr. J. says that because I expressed myself with warmth and indignation at the treatment I had received, I occupy "an undignified position." I here submit that Dr. Johnson tries to put the saddle on the wrong horse, and that it is he himself who is in that position. Here is a physician, filling a tolerably prominent place in the medical profession, who ought, therefore, to be the more careful in his conduct, and who should set in such matters an example for others to follow, acting in the manner I have described, and which I am sure not one of your readers, except Dr. Johnson himself, will attempt to justify.

I remain, Sir, your obedient servant,

ARTHUR HILL HASSALL, M.D.

Ventnor, Isle of Wight, March 29th, 1875.

THE AMATEUR GARDENER'S ILLUSTRATED GUIDE.

MESSRS. DANIELL, of Norwich, forward to us every year a copy of their very useful Guide. The work is well got up, and contains a large amount of information, which will be of great service to amateur gardeners.

BRITON MEDICAL AND GENERAL LIFE ASSOCIATION.

IN spite of the onslaught recently made on this Office, a perusal of its twenty-first Annual Report, just issued, will convince the most suspicious and sceptical that it is solvent and full of vigour. The Report shows that during the year the Directors have received 1773 proposals for assuring £535,892 6*s.* 9*d.*, which proposals have been thus dealt with:—74 for assuring £28,753 18*s.* 9*d.* have been declined; 454 for assuring £154,518 12*s.* 9*d.* have not been carried into effect from various other causes; and 1245 for assuring £352,619 15*s.* 3*d.* have been completed, and have produced the sum of £11,667 10*s.* 3*d.* in new annual premiums. The total premium income for the year, after deducting the amount paid for re-assurance, amounted to £216,267 6*s.* 10*d.*; the interest to £28,628 2*s.* 7*d.*; other items of receipt to £621 1*s.*; making a total income of £245,516 10*s.* 5*d.* The amount of the balance of receipts over expenditure is smaller on this than on many previous occasions, on account of the large amount paid during the year for the repurchase of policies. As the sum thus paid is, however, in discharge of liabilities entered into by the Society, it might with propriety have been added to the amount of the balance, the purpose of the two being identical. Notwithstanding this, the Funds account has increased to £859,305 3*s.* 7*d.* The accounts, which have been prepared in the prescribed Parliamentary form, have been duly audited by the four auditors, who have met periodically during the year for that purpose. They have again recorded their testimony to the care and accuracy in keeping the accounts of the Association. During the year the Association has been made the subject of much adverse criticism and invidious comments. The Directors have never entertained any doubt of the sound position of the Association. They are fully alive to the responsibilities devolving upon them, and feel confident in their ability to protect in the future, as they have hitherto in the past, the interests of both policyholders and shareholders. Under the heading of expenditure we observe that a sum of £1912 0*s.* 4*d.* is put down to fees paid to medical men.

L.R.C.P. Lond.—The prescription is arbitrary, and does not admit of translation.

MEDICAL ETHICS.

To the Editor of THE LANCET.

SIR,—I think the utter want of professional courtesy shown in the case I am about to narrate deserves placing before your readers.

I have been recently attending a pauper patient, suffering from advanced ovarian disease. I advised tapping as the only useful palliative, which the patient and her friends were to think over for a few days. I saw her on the 6th inst. Next day Mr. —— called to see another patient in the same house. My patient, as she had a perfect right to do, asked his opinion as to the advisability of her being tapped. He agreed that it was best for her, and *volunteered* to perform the operation next day. However, he was prevented, and instead sent word that he and Dr. —— should operate on Tuesday morning, the 9th. On Monday evening the patient's sister came to tell me these particulars, saying they (the friends) thought I ought to know what was intended to be done the following day, and stating that the patient and they entirely approved of my treatment of the case. The operation was performed by Mr. —— and his friend, and the fact that another doctor had been in constant attendance was purposely unnoticed. Mr. —— knew that I was attending, as he was only asked if he agreed with what I had advised being done, and it was only from the friends spontaneously that I heard what another practitioner intended doing. The ordinary motive of catching a good patient was in this case out of the question. No fee could be expected from the patient, and the guardians are not likely to allow one. Pure philanthropy would have incited a more honourable way in performing a good deed, and to others I must leave to judge of the motives that prompt such paltry actions.

I remain yours truly,

Chatteris, March 15th, 1875. MITCHELL WILSON, M.B.

THE ALKALOID OF JABORANDI.

M. CARVILLE has presented to the Biological Society of Paris the result of experiments performed by Messrs. Galippe and Rochefontaine on the alkaloid of jaborandi extracted by M. Byasson. When dissolved in water it has had very marked effects in forty minutes. The authors conclude that the alkaloid just named is the really active part in the bark and leaves of the plant.

A Lover of the Sun.—Mr. Frank Godfrey, 10, Canonbury-road, Islington, desires us to state that he will give the correspondent writing under the above name the information he requires.

Dr. J. Morris.—Yes.

ASHLEY FUND: FINAL LIST OF SUBSCRIPTIONS.

J. E. Erichsen, Esq. ...	£10	10	0	J. C. Vawdrey, Esq.	1	1	0
Dr. Greenhall, Hastings ...	1	0	0	J. J. Russell, Esq.	5	0	0
J. T. Clover, Esq.	2	2	0	A Friend	1	1	0
Dr. Atwood	3	3	0	T. Davies, Esq.	5	5	0
H. Stear, Esq., Saffron Walden	2	0	0	R. Michell, Esq.	1	1	0
Mrs. Jolley	1	1	0	W. B. Owen, Esq.	1	1	0
R. O. White, Esq.	2	0	0	J. Owen, Esq.	0	10	6
Dr. Dow	1	1	0	Miss Hopkins	0	10	6
J. Brewer, Esq.	3	0	0	Mrs. Sconce...	3	0	0
Mrs. B. Sanderson, per Dr. Priestley	5	0	0		52	7	0
Dr. T. Bennett, San Francisco	1	0	0	Amount previously published...	152	7	6
Mrs. Henderson	1	0	0	Total	£204	14	6
G. Critchett, Esq.	1	0	0				

M. A., (Sheffield.)—It has been stated that the Cambridge University extension scheme is likely to receive an impetus at Sheffield by the public spirit and munificence of the Mayor of the town, who has expressed his intention, when a suitable site can be obtained, of erecting and presenting to his fellow-townsmen a building for the purposes of the scheme.

THE DRAWBACKS OF ESMARCH'S ISCHÆMIA.

M. DUTRAIT, resident surgeon to the Charité Hospital of Lyons, has published an article on these drawbacks, which puts them in a very clear light (*Lyon Médical*, March 7th and 14th, 1875)). Not that the author wishes to depreciate the method, which in many instances is extremely valuable; but his aim is to draw attention to the immediate loss of blood when the elastic compression is removed and all the vessels which could be found are tied, and to the secondary hæmorrhage which not unfrequently occurs after ischæmic operations. M. Dutrait adduces many cases which have come under his own observation. They show that we should be very watchful against secondary hæmorrhage. The author, to strengthen his position, alludes to a work lately published in Paris (Augier, De l'Anémie Artificielle), and to an article of M. Nicaise (*Gaz. Méd. de Paris*, Nov. 29th, 1874), in which important statistics and excellent arguments will be found.

Nom de Plume.—1. It is better to do so, and avoid any unpleasantness.—2. Only in urgent cases.

THE WATER-SUPPLY OF OXFORD.

To the Editor of THE LANCET.

SIR,—In reference to the alarming statements made in recent numbers of THE LANCET as to the "sewage-polluted" water now said to be supplied to Oxford by the City Waterworks, and in order to justify the efforts which I have for some time past been making to substitute in many parts of this district the City water-supply for that obtained from wells assuredly contaminated with sewage matter, please to allow me to publish in your columns a Report made by Mr. Donkin upon the Condition of the City Water as recently as the 17th inst.

"Water very nearly clear, with a faint yellowish tinge.

Chlorine...	1·45	parts in	100,000
Free ammonia	0·000	"	"
Albuminoid ammonia ...	0·010	"	"
Nitrogen, as nitrates...	0·26	"	"

These are almost identical with the figures obtained in November and January last. The numbers are very little above Wanklyn's standard, although they should be below it, and no doubt will be when the filters are started. They are quite low enough to acquit the water of being called 'dilute sewage.'"

I will only add that, in 1873, Dr. Voelcker, after making a complete analysis of the water, pronounced it to be "very good and wholesome for drinking and other domestic purposes," and that his statement to that effect was alluded to in a Report, of which your Sanitary Commissioner was furnished with a copy. Your obedient servant,

ALFRED WINKFIELD, F.R.C.S.,
Medical Officer of Health to the Oxford Local Board.

Oxford, March 29th, 1875.

*** Mr. Winkfield has acted rightly in endeavouring to substitute the City water-supply for that obtained from the wells of certain districts of the town. We do not hesitate for a moment to say that the City water-supply, even at its worst, is infinitely superior to that obtained from most of the City wells. At the same time we must again say, as we have often said before, that the condition of the City reservoir is most unsatisfactory and alarming. There can be no doubt, and we have already given our authorities for the statement, that sewage does find its way from the undrained suburb of Hincksey to the reservoir, and the water so contaminated is supplied *unfiltered* to the townspeople. Mr. Winkfield, in his Report for the year 1873, strongly urged that the water should be filtered before distribution; but in January of the present year the directors of the Water Company had taken no steps to carry out this much-needed improvement, although, owing to the public agitation of the subject, we believe it will not be long delayed. Of course the degree of dilution of the sewage will vary directly in proportion to the quantity of water mixed with it. In the winter months, when the reservoir is full, the dilution will be at its maximum; during the summer months the pollution will be greater. We quite agree with Dr. Voelcker that naturally the water is good and wholesome; so was the water of Lewes—indeed far above the Oxford standard; still that did not prevent its becoming contaminated with specifically infected sewage matter, and leading to a most disastrous outbreak of enteric fever. Once permit the source of the water-supply to become liable to contamination, and all security is at an end. We append an analysis of Mr. Donkin's, taken from the medical officer of health's reports, in which he states that the City water, though considerably improved, was "*at least twice as bad as the average of London waters*"!

"*Analysis of sample of City water collected near in-take pipe, Oct. 7th*, 1873.—Rather turbid, with many small floating particles, including a considerable number of various kinds of living entomostraca; has a slight brownish-yellow tint in a stratum of ten inches depth.

Total solids	31·2	parts in	100,000
Free ammonia	0·006	"	"
Albuminoid ammonia ...	0·016	"	"
Chlorine	1·81	"	"
Nitrogen, as nitrates ...	0·092	"	"

The quality of the water has considerably improved since the summer; it ought to be good and wholesome after filtration. In its present state it is at least twice as bad as the average of London waters."—ED. L.

THE SCHOOL OF DENTISTRY OF VIENNA.

THIS institution is the first of the kind which has ever existed in Vienna. It is peculiar in respect of the admission of pupils, as none but diplomated medical men can enter. The summer session for 1875 has just been advertised, with the names of four lecturers, and teachers of high dental reputation in Vienna. The fee is about £4 a month.

GRAVESEND AND MILTON DISTRICTS.

THE guardians of the poor in these districts are in considerable embarrassment in consequence of the profession unanimously declining to take the medical officership of the Milton district at a lower salary than £100. One or two strangers have been treated with; but even they have failed the guardians. One of them, to his honour, withdrew, after learning that in the unanimous opinion of the medical men of Gravesend and Milton the salary offered was absurdly inadequate to the purpose. Of course the guardians cry out "trades unionism." But there are legitimate kinds of unionism, and the profession in these parts does good service in setting an example of determination not to take parish work at perfectly inadequate rates of remuneration. There has been too little of this sort of unionism in the profession.

A Beginner.—It cannot be said that there is anything unprofessional in such a course. It has, however, obvious disadvantages.

A MILITIA SURGEON'S GRIEVANCE.

To the Editor of THE LANCET.

SIR,—I enclose a copy of correspondence between myself and the Secretary of State for War, thinking it may possibly interest some of your readers, and also enlighten them as to the value put upon our services by the War Office. Your obedient servant,

Wood Green, March 20th, 1875. BASIL RINGROSE.

P.S.—I may add I have, of course, to repay the 6*s.* to the adjutant of the regiment.

[COPY.]

The Secretary of State for War.

Wood Green, Middlesex, March 5th, 1875.

RIGHT HON. SIR,—I was much surprised last evening by being called upon to refund 6*s.* paid to me last year for my "travelling expenses" when going from Wood Green to Barnet in the capacity of assistant-surgeon to the 2nd Royal Middlesex Militia for the purpose of examining the recruits coming up for training last Easter. I was informed last evening by the paymaster-sergeant that the War Office had disallowed the travelling expenses, and the adjutant of the regiment would feel obliged by my refunding the 6*s.* This I declined to do, as I am at a loss to understand how I could be expected to go from Wood Green to Barnet, a distance of six miles, without entailing any expense. I was occupied all day in examining the dirtiest of men, and my services for that duty were valued at the munificent amount of 10*s.*, a little more than the pay of an ordinary "day labourer," the whole amount, including the "disallowed" travelling expenses, being 16*s.* Had I remained at home attending to my usual professional duties I could have earned almost as many guineas. I trust you will pardon me for writing in this strain; but I feel it amounts almost to an insult to medical men that the services rendered and the time devoted by them to the performance of the responsible duties they have to execute should be so undervalued as to make the amount of 6*s.* out of a total of 16*s.* for a hard and most disagreeable day's work, as in the present case, a matter of consideration and importance nearly one year afterwards.

I have the honour to be, Right Hon. Sir,
Your most obedient, humble servant,
BASIL RINGROSE.

[COPY.]

Financial Secretary's Department, War Office,
March 12th, 1875.

SIR,—I am directed by Mr. Secretary Hardy to forward to you the enclosed letter from Mr. Ringrose, and to request that you will explain to him that any communication he may have to make in respect of his position as late assistant-surgeon of the 2nd Middlesex Militia should be forwarded through the officer commanding or adjutant of the regiment.

I have the honour to be, Sir,
Your obedient servant,
(Signed) H. S. HOOD.

The Officer commanding the 2nd Middlesex Militia,
Barnet.

Sanitas.—The Syndicate superintending these examinations has in preparation a list of books for the guidance of candidates, but it is not yet ready The general principles of Chemistry and Physics are sufficiently set forth in the ordinary manuals, amongst which may be named Fownes's, Bloxam's, and Roscoe's on Chemistry; Deschanel, Ganot, and Lardner (the new editions) on Physics, Hydrostatics, &c. But it is the application of general principles to practical cases with which candidates will be expected to be familiar, and we do not know any book specially devoted to this, though a great deal of Parkes's "Practical Hygiene," Ed. Smith's "Manual for Officers of Health," and his "Handbook for Inspectors of Nuisances" are occupied with such questions. On the special question of Water-supply, there are the Reports of the Royal Commission on that subject, and Wanklyn and Chapman's book on Water Analysis; on Sewage, Corfield's book; and on Disinfectants, Dr. Angus Smith.

THE FAMILY OF THE LATE MR. DAVENPORT.

MR. JAMES F. WEST, F.R.C.S. (Birmingham), begs to thank the following gentlemen, who have sent him contributions to this Fund since last Saturday:—

A Friend	£3	3	0
J. Penhall, Esq., F.R.C.S., St. Leonard's	2	2	0
D. De Berdt Hovell, Esq., Clapton ...	1	0	0
Dr. S. Spratly, Rock Ferry	0	10	6
The Proprietors of *Public Health* ...	1	1	0
Mrs. E. Thompson, Salisbury	1	1	0

T. P. C.—No objection would, we believe, be raised against the occasional visits of qualified medical practitioners to the wards of the metropolitan hospitals.

Mr. Rumplin.—It is contrary to our custom to recommend a particular physician or surgeon.

J. A. W.—Consult an aural surgeon.

MEANS OF TEACHING ANATOMY IN CANADA.

TEACHERS of anatomy in Montreal would appear to be just now labouring under a difficulty which was of yore very commonly, and is even in the present day not very infrequently, complained of by their brethren in the mother country. This difficulty is the scarcity of subjects for dissection. According to the *Toronto Globe*, the high price which has to be paid for subjects has developed the revolting trade of "body-snatching" to such an extent as to have excited great popular feeling on the matter. The need of some legislation in the Dominion, similar to the Anatomy Act in England, would seem to be indicated by the occurrence of scenes such as those described.

Mr. A. D. should address his communication to the Secretary of the Apothecaries' Hall.

T. W. S.—We do not answer such questions.

M. D.—Probably Dr. George Cheyne, who was troubled with great corpulency. From personal experience of its benefit, he advocated the use of a milk and vegetable diet as a means of remedying that condition.

THE DARBY DEFENCE FUND.

FURTHER contributions received on behalf of the above Fund:—

	£	s.	d.		£	s.	d.
G. May, Esq., Reading ...	1	1	0	Dr. J. Lace, Frizinton ...	1	1	0
Dr. A. C. Turner, St. Neot's	0	10	6	Dr. C. A. Lee, Hull	0	10	6
A. R. Martin, Esq., Rochester	1	1	0	Dr. H. Lonsdale, Carlisle...	1	1	0
				J. Jackson, Esq., Oaken ...	0	10	6
Dr. W. V. Lush, Weymouth	1	1	0	Dr. J. Humphrey, Aylesbury	1	1	0
E. Lee, Esq., Manchester...	0	10	6	Dr. J. Mansell, Grantham .	1	1	0
Dr. Leech, „ ...	1	1	9	Dr. G. P. May, Maldon ...	1	1	0
W. Jackson, Esq., Shirley...	1	1	0	Dr. J. D. Moore, Lancaster	0	10	6
Saml. Hey, Esq., Leeds ...	1	1	0	Dr. E. C. Odling, Wendover	0	10	6

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson, London; Dr. B. W. Richardson, London; Mr. Henry Smith, London; Mr. Sampson Gamgee; Dr. W. Farr, London; Dr. A. Hassall, Ventnor; Dr. Corfield, London; Dr. Herring, New York; Dr. S. Kemp, Bombay; Mr. Taylor, Scarborough; Dr. Brailey, London; Dr. Cornell, Calcutta; Dr. Shearman, Rotherham; Mr. Greaves; Dr. Gramshaw; Mr. J. West; Mr. Wilkinson, Penang; Mr. Farquharson, London; Mr. Humphreys, London; Dr. Liveing, London; Dr. Vines, London; Dr. Gascoigne, Ontario; Mr. Cooper, London; Dr. Will, Aberdeen; Miss Wheatcroft; Mr. Hepworth, London; Mr. Leitch, Glasgow; Dr. Oliver, Halifax, N.S.; Dr. Hale, London; Dr. Keith, Edinburgh; Mr. H. Gay; Mr. Lindsay, London; Mr. M'Greery; Mr. Godfrey, London; Mr. Poole; Dr. M. Long, London; Mr. R. Williams; Dr. Broadbent; Mr. G. A. Woods, Southport; Mr. Gordon, Essequebo; Dr. Steele, London; Dr. Evatt, India; Dr. Kidd, Ballymena; Mr. Forsyth, Middlesborough; Dr. J. Stephens, Brighton; Dr. Rose, Chesterfield; Mr. Ramplin; Mr. Ovill, Winsford; Mr. Harries, Aberystwith; Mr. Winkfield, Oxford; Mr. Lister, London; Mr. Hindle; Dr. Ottley, Birmingham; Mr. Foster, London; Mr. Lister, Edinburgh; Mr. Lowndes, Liverpool; Dr. Newman, Stamford; Mr. Reeves, London; Mr. Worsley, Heywood; Mr. Robinson, Kettlewell; Mr. Izod, Esher; Dr. Gairdner, Glasgow; Mr. Monckton, Hurstpierpoint; Mr. Forward, Axminster; Mr. Willmore, Queenwood; Mr. J. G. Brown, London; Mr. Day, Cwm Brân; Dr. S. Norton, London; Mr. Hartley, Cheltenham; Dr. Tay, London; Dr. Sylvester, London; Mr. Churchward, London; Mrs. Parrott, Sheffield; Dr. Daly, Dalston; Mr. Sergeant, London; Mr. Reilly; Dr. May, London; Mr. Goodell, Brixton; Mr. Blakeney, Cloghan; Mr. Bingham, Bristol; Mr. Hunt, Hull; Dr. Hare, London; Rev. A. J. D. D'Orsey, London; Messrs. Fannin and Co., Dublin; Mr. Brend, New Buckenham; Dr. E. Croft, London; Mr. Tucker, South Molton; Messrs. Pilgeram and Lefevre, London; Mr. Raye, Ledbury; Mr. Sayer, Yailton; Mr. Scott, Kingstown; Mr. Symons, Dumfries; Mr. Fairles, Montgomery; Dr. Mackintosh, Chesterfield; Dr. Morris, Barnsley; Dr. Fasken, Portsmouth; Mr. Badham, London; Mr. Grapper, Worcester; Dr. Walker, Hanley; Royal Institution; M. D.; M. J. T.; An Old Shipowner; T. P. W.; T. W. S.; One who was Present; A Beginner; Curiosity; A. M., Sheffield; L.R.C.P. Lond.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. West, Limehouse; Mr. Swan, Spalding; Mr. Hendry, Liverpool; Mr. Phelps, Bristol; Messrs. Farrant and Co., Merthyr; Mr. Lithgow, Wisbeach; Mr. Pinder, Limehouse; Mr. Morris, Hounslow; Mr. Pinder, Kingsland; Mr. Moore, Petersfield; Mr. Shaw, Attercliffe; Mr. Crothers, Newcastle; Mr. Bogg, Louth; Mr. Macpherson, Chichester; Mr. Graydon, Newtownlimavady; Mr. Timmins, Wotton-under-Edge; Mr. Gripper, Hales Owen; Mr. Harris, Southampton; Mr. Doorian, Bolton; Mr. Jackson, Wilton; Mr. Orton, Crouch End; Mr. Duke, Dublin; Messrs. Ball and Morgan, York; Mr. Wood, Ilkeston; Dr. Eastwood, Darlington; Mr. Marshall, Holloway; Mr. Baker, Wendover; Mr. Pendrie, Belfast; Mr. Allard, Tewkesbury; Mr. Thomas, Llanelly; Mr. Lewes, London; Mr. Hopkins, Bath; Mr. Ravenhill, London; Mr. Cardell, Wincanton; Mr. Deane, Barrow-in-Furness; Mr. Breadne, Manchester; Mr. Clarke, Lancaster; Mr. Sharp, Truro; Messrs. Beaman and Johnston, Wigan; Mr. Levitt, Bibney; Mr. Laurence; L. M., Great Grimsby; Medicus, Chepstow; P. M., Great Yarmouth.

Newcastle Daily Chronicle, Cork Constitution, Manchester Guardian, Surrey Advertiser, Huddersfield Chronicle, Liverpool Post, Western Mercury, Leeds Mercury, Western Morning News, Sheffield Independent, and *Isle of Man Times* have been received.

METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, APRIL 1ST, 1875.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radiation in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 9 A.M.
Mar. 26	30·24	W.	49	44	...	57	42	...	Cloudy
„ 27	30·12	W.	42	40	...	56	41	...	Fine
„ 28	30·15	N.W.	44	37	...	47	38	...	Cloudy
„ 29	30·42	N.NW	43	40	...	53	41	...	Overcast
„ 30	30·48	N.	46	44	...	55	42	...	Overcast
„ 31	30·53	N.W.	49	45	...	58	45	...	Overcast
April 1	30·65	S.E.	45	49	...	52	47	...	Overcast

Medical Diary for the ensuing Week.

Monday, April 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—2 P.M. General Monthly Meeting.

ST. PETER'S HOSPITAL. — 3½ P.M. Expected Operation: Boutonnière.

MEDICAL SOCIETY OF LONDON. — 8 P.M. Mr. Henry Smith: A short communication on a "Case of Injury simulating Extravasation of Urine."—Mr. Lennox Browne: "Considerations on the Treatment of New Formations of a benign character in the Larynx."—Dr. Metcalf, of Geneva (communicated by Dr. Sedgwick), "On a Case of Numerous and Severe Injuries from a Fall."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M.

Tuesday, April 6.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION. — 3 P.M. Prof. Duncan, "On the Grander Phenomena of Physical Geography."

PATHOLOGICAL SOCIETY OF LONDON. — 8½ P.M. Dr. Charlton Bastian will open a discussion on the "Germ Theory of Disease, being a discussion of the relation of Bacteria and allied Organisms to the virulent Inflammations and to the specific Contagious Fevers."

Wednesday, April 7.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, April 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Seeley, "On the Fossil Forms of Flying Animals."

Friday, April 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION. — 8 P.M. Evening Meeting. — 9 P.M. Sir William Thomson, "On Tides."

CLINICAL SOCIETY OF LONDON. — 8½ P.M. Dr. Buzzard will exhibit a Patient with Disseminated Sclerosis. — Dr. Dowse: "An unusual Case of Lead-poisoning." — Mr. Jonathan Hutchinson, "On a Case of Intracranial Aneurism diagnosed during Life, and in which spontaneous Cure occurred and the Patient lived eight years." — Dr. Hermann Weber, "On three Cases of Pyæmia caused by Acute Suppuration of the Middle Ear"; and a "Case of Acute General Tuberculosis caused by Chronic Inflammation in the same locality."

Saturday, April 10.

ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. Geo. Smith, "On the History of Assyria."

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